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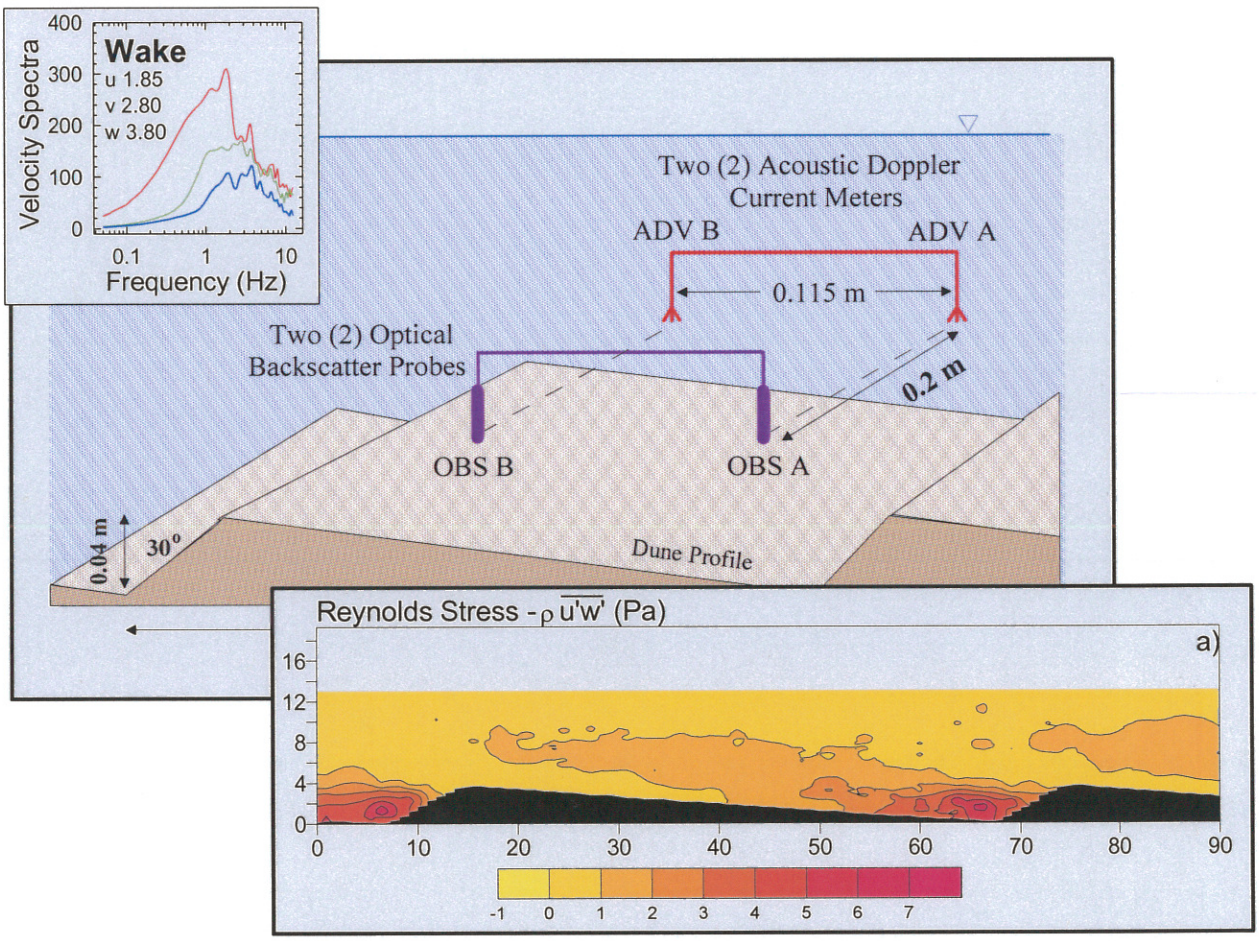
Spectral Analysis of Turbulent Flow and Suspended Sediment Transport over Fixed Dunes



Jeremy G. Venditti and Sean J. Bennett

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NOTATION

B_w	bandwidth.
c, c_i, c', C	suspended sediment concentration, its instantaneous value, its fluctuation about the mean, and its mean value.
d	flow depth.
f	frequency.
ff, ff_R	Darcy-Weisbach friction factor calculated using τ_0 and τ_R.
f_n	Nyquist frequency.
Fr	Froude number.
g	acceleration due to gravity.
H	dune height.
L_E, T_E	Eulerian integral length and time scale.
k	time step used for the autocorrelation functions.
P	turbulence production.
$P(f)$	spectral energy.
q_s	suspended sediment transport rate.
R	hydraulic radius.
Re	Reynolds number.
R_{uw}	boundary layer correlation.
$R(t)$	autocorrelation function.
S	water surface slope.
t	time.
TKE	turbulent kinetic energy.
u, u_i, u', u_{rms}, U, $\overline{U}$	streamwise velocity, its instantaneous value, its fluctuation about the mean, its root-mean-square value, its mean value at a point, and its depth-averaged value.
u_*, u_{*R}	shear velocity calculated using τ_0 and τ_R.
v, v_i, v', v_{rms}, V	cross-stream velocity, its instantaneous value, its fluctuation about the mean, its root-mean-square value, and its mean value at a point.
w, w_i, w', w_{rms}, W	vertical velocity, its instantaneous value, its fluctuation about the mean, its root-mean-square value, and its mean value at a point.
x	distance along the working section
z	height above the dune trough.
ε	eddy viscosity.
λ	dune wavelength.
ν	kinematic fluid viscosity.
ρ	fluid density.
σ^2	total variance of time-series.
τ_0	boundary shear stress.
τ_R	spatially averaged Reynolds shear stress.
$\tau_{uw}, \tau_{uv}, \tau_{vw}$	Reynolds shear stresses.
ω_s	sediment fall velocity.

ATTACHED FILES

There are three files attached to this document containing some of the data discussed herein VELMOMS.DAT, CONCPROF.DAT, and BEDPROF.DAT. File VELMOMS.DAT contains columns of the following data: x, z, U, V, W, u_{rms}, v_{rms}, w_{rms}, u-velocity skewness, v-velocity skewness, w-velocity skewness, $\tau_{uw}, \tau_{uv}, \tau_{vw}$, R_{uw}, correlation between the u-v time-series, correlation between v-w time-series, TKE-$-\rho\overline{u'w'}$ correlation, TKE-$-\rho\overline{u'v'}$ correlation, TKE-$-\rho\overline{v'w'}$ correlation, *TKE*, turbulence intensity (u_{rms}/U), ε, P, and mixing length $\left(\sqrt{\frac{\varepsilon}{\partial U/\partial z}}\right)$.

CONCPROF.DAT contains columns of the following data: x, z and C. BEDPROF.DAT contains columns of the following data: x and bed height above z=0.

Spectral analysis of turbulent flow and suspended sediment transport over fixed dunes

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ABSTRACT. Laboratory measurements of turbulent fluctuations in velocity and suspended sediment concentration were obtained synchronously over fixed, two-dimensional dunes in a sediment-starved flow. Contour maps of turbulent flow parameters demonstrate that the flow separation cell and a perturbed shear layer are the main sources of turbulence production, and that the distribution of suspended sediment is controlled by spatially-dependent macroturbulent flow structures. Spectral analysis reveals that peak spectral energies generally occur at 1 to 2 Hz for the streamwise velocity component and 2 to 4 Hz for the cross-stream and vertical velocity components. Spectra show larger and better-defined energy peaks near the shear layer. Peak spectral energies for suspended sediment concentration occur near 1 Hz throughout the flow. Squared-coherency values for co-spectral analysis of velocity and sediment concentration are insignificant. Integral time-scales for velocity range from 0.20 s for the streamwise component to 0.06 s for the cross-stream and vertical components. Integral length scales for velocity range from 0.065 to 0.135 m for the streamwise component, which are comparable to flow depth, and from 0.020 to 0.030 m for the cross-stream and vertical components, which are comparable to dune height. For suspended sediment concentration, integral time and length scales are similar to the streamwise velocity component.

INTRODUCTION

Dunes are the most common bed configuration in sand-bedded streams. The dimensions and migration rates of dunes control bedload transport rates and their presence significantly impacts total flow resistance. Dunes also interact with the turbulent flow field, and several studies have described the macroturbulent characteristics of spatially-varied flow over these bedforms [*Nelson et al.*, 1993; *McLean et al.*, 1994; *Bennett and Best*, 1995; *McLean et al.*, 1996]. Examining the complex interaction between turbulent flow, bed topography, and sediment flux will lead to improved understanding of bedform stability, transition, and more generally flow and sediment transport processes in river channels [see *Best*, 1996, *Ashworth et al.*, 1996; *Parker*, 1996].

Macroturbulent flow over dunes strongly affects suspended sediment transport processes. Phenomena such as 'kolks' and 'boils', which are circular upwellings of both fluid and sediment, appear to be related to macroturbulent events and originate along the shear layer downstream of dune crests and at the point of flow reattachment [*Matthes*, 1947; *Korchokha*, 1968; *Coleman*, 1969; *Jackson*, 1976; *Müller and Gyr*, 1982, 1986; *Iseya*, 1984; *Iseya and Ikeda*, 1986; *Babakaiff and Hickin*, 1996]. These periodic motions can cause orders of magnitude variations in suspended sediment transport rates at-a-point and are thought to be responsible for much of the vertical mixing in rivers [*Lapointe*, 1992; *Kostaschuk and Church*, 1993]. Studies using optical and acoustic sensors in estuaries and coastal waters also have highlighted the importance of macroturbulent events in transporting sediment in near-bed regions [*Hay and Sheng*, 1992; *Lapointe*, 1992, 1996; *Thorne et al.*, 1993, 1996]. These observations have demonstrated that pure gradient diffusion is an inappropriate model for predicting the distribution of suspended sediment in these turbulent shear flows, and that periodic convection of sediment within or associated with macroturbulent events must also be considered [see *Nielsen*, 1992, 1994].

In spite of considerable success in quantifying macroturbulent events and their effect on suspended sediment transport, the dynamics of this interaction remains poorly understood. Moreover, the frequency and scaling of large-scale sediment-laden turbulent motions have not been resolved. Acquisition of coincident time-series of turbulent fluctuations in velocity and suspended sediment concentration have afforded opportunities to use spectral and co-spectral analysis to examine the link between turbulence and suspended sediment flux.

Spectral analysis has been applied to examine the characteristics of suspended sediment transport under waves in near-shore environments. *Osborne and Greenwood* [1991a,b, 1993] have used spectral and co-spectral analysis to determine the link between sediment transport and near-bed wave velocity. Their results show that the vertical convection of sediment can be

related to ejections of fluid in the wave boundary layer over bedforms. *Hay and Bowen* [1994] have also applied time-series analysis to examine suspended sediment transport scaling in the surf zone. They have shown a relation between sediment flux and large-scale eddies generated under longshore currents over dunes whose crests were oriented in a shore-normal direction. Laboratory experiments by *Ikeda and Asaeda* [1983] correlated sediment concentration energy spectra peaks with turbulent bursting periodicity scaled by outer boundary variables in the lee of ripples. Similar attempts to link turbulent motions to suspended sediment transport using spectral and co-spectral analysis have been made in rivers with modest success [e.g. *Lapointe*, 1992, 1996].

The present paper examines turbulent flow over dune bedforms in a laboratory channel and the link between macroturbulence and suspended sediment flux. The objectives the study were (1) to describe the characteristics of turbulent flow and suspended sediment transport over dunes, (2) to determine the frequency and size of coherent flow structures (macroturbulence) using spectral and co-spectral techniques, and (3) to define the link between turbulent fluctuations in velocity and suspended sediment flux.

EXPERIMENTAL EQUIPMENT AND PROCEDURE

The experiment was conducted at the National Sedimentation Laboratory, U.S. Department of Agriculture, Oxford, MS using a tilting recirculating flume 15.2 m long, 1 m wide, and 0.25 m deep. Twenty-four two-dimensional steel dunes 0.6 m long and 0.04 m high, with a slip face angle of 30°, were fixed to the floor of the flume, covering almost 95% of the flume length.

A necessary prerequisite for examining turbulent flow over fixed bedforms is to employ a flow stage similar to that experienced by equilibrium mobile dunes of identical size [see *Bennett and Best*, 1995]. Based on previous studies [*Guy et al.*, 1966; *Flemming*, 1988; *van Rijn*, 1994], a Froude number ($Fr = \overline{U}/\sqrt{gd}$, where $\overline{U}$ is mean streamwise flow velocity, g is gravitational acceleration, and d is mean flow depth) of 0.35 was selected as an appropriate flow criterion for these bedforms. Mean flow velocity, mean flow depth, and discharge were set to 0.458 m s^{-1}, 0.175 m, and 0.079 m^3 s^{-1}, respectively, so that dune height-to-flow depth ratio ($H/d = 0.229$) and dune height-to-length ratio ($H/\lambda = 0.067$) agree well with those observed in previous studies (see review in *Bennett and Best*, 1995). Flow discharge was monitored using a differential pressure transducer connected to ports about an in-line orifice plate. Quasi-equilibrium flow was achieved by adjusting the slope to attain the same flow depth to within ±2 mm over five successive bedform crests. Mean water surface slope S over a length of 5.4 m of the flume was 0.00181, mean boundary shear stress ($\tau_0 = \rho g R S$ where ρ is fluid density and R is the hydraulic radius) was 2.31 Pa, shear velocity ($u_* = \sqrt{\tau_0/\rho}$) was 0.041 m s^{-1}, friction factor ($ff = 8\tau_0/\rho\overline{U}^2$) was 0.087, and flow Reynolds number ($Re = \overline{U}d/\nu$ where ν is the kinematic viscosity of the fluid) was 8.0×10^4. Table 1 summarizes the hydraulic and bed conditions for the experiment.

Approximately 20 kg of well-sorted sand with a median diameter of 0.1 mm and fall velocity ω_s of 0.008 m s^{-1} was added to the flow. While both bedload and suspended load transport were observed, the flow was starved of sediment. It is noted that the addition of sediment to the flow has the potential to alter the characteristics of the turbulence (see review in *Best et al.*, 1997). Although no measurements were made in equivalent clear-water flows, turbulence modulation is expected to be minimal based on the grain size and the concentration of sediment used. Some sediment deposited on the dune slip faces during the experiment, and this was periodically removed. Equilibrium vertical profiles of suspended sediment concentration for a flat-bed flow is expected at a distance of $\overline{U}d/\omega_s \geq 10$ m from the flume headbox [*Willis*, 1969].

The mean suspended sediment concentration through the test section was 141.9 mg l^{-1} (0.065 kg m^{-1} s^{-1}; see below).

Table 1: Summary of Hydraulic and Bed Conditions for the Experiment

Parameter	Value
Dune height H (m)	0.040
Dune length λ (m)	0.600
Dune height-to-depth ratio (H/d)	0.229
Dune height-to-length ratio (H/λ)	0.067
Slip-face angle (degrees)	30
Width (m)	1.000
Mean depth d (m)	0.175
Maximum depth (m)	0.194
Mean flow velocity $\overline{U}$ (m s^{-1})	0.458
Maximum flow velocity (m s^{-1})	0.625
Discharge (m s^{-3})	0.079
Water surface slope S	0.00181
Froude number $Fr = \overline{U}^2/\sqrt{gd}$	0.350
Reynolds number $Re = \overline{U}d/\nu$	8.0×10^4
Bed shear stress $\tau_0 = \rho gRS$ (Pa)	2.31
Shear velocity $u_* = \sqrt{\tau_0/\rho}$ (m s^{-1})	0.048
Darcy-Weisbach friction factor $ff = 8\tau_0/\rho\overline{U}^2$	0.088
From Reynolds Stress Profile:	
τ_R (Pa)	1.69
u_{*R} (m s^{-1})	0.041
ff_R	0.064
Mean suspended sediment concentration (mg l^{-1})	141.9
Mean suspended sediment flux (kg $m^{-1}s^{-1}$)	0.065

All flow sensors and turbidity probes were mounted on a movable carriage rode on rails mounted on the flume sidewalls. Velocity measurements were obtained using two acoustic Doppler velocimeters (ADVs) and one electromagnetic current meter (ECM). The ADVs measure three-component flow velocities at 25 Hz, have a reported accuracy of ±0.1 mm s^{-1}, and had focal lengths of 0.053 and 0.058 m. These probes were mounted in a plane parallel to the flow direction and spaced 0.115 m apart (Figure 1). ADV signals are affected by Doppler noise, or white noise, associated with the measurement process [*Lohrmann et al.*, 1994]. The presence of this noise at high frequencies may create an aliasing effect in frequencies greater than the Nyquist frequency (herein $f_n = 12.5$ Hz). To remove possible aliasing effects, a Gaussian low-pass filter with a half-power frequency of 12.5 Hz was applied to the velocity time-series

removing all variance at frequencies above f_n [*Biron et al.*, 1995; *Lane et al.*, 1998]. To correct for misalignment of the velocity probe, it is also common to rotate velocity signals to maximize the mean streamwise velocity. However, the sensor position was carefully aligned with reference to the flume centerline so no rotations were applied. The ECM measures two-component flow velocities at 5 Hz about its 12.5-mm diameter probe head, and has a reported accuracy of ±9 mm s^{-1}. In the present application, only the streamwise component was measured in the near-surface flow region.

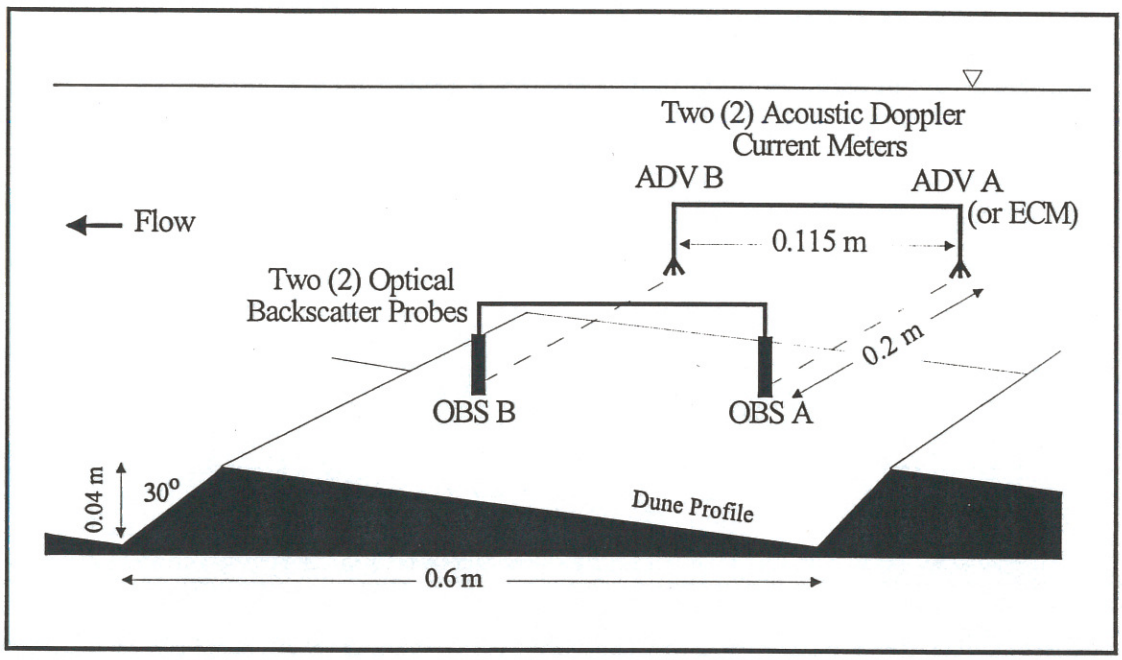

Figure 1:Schematic of the dune topography and instrument positions.

Two optical backscatter probes (OBS) were mounted perpendicular to the flow direction and oriented toward the ADV sampling volumes at a distance of 0.2 m (Figures 1 and 2). OBS probes measure water turbidity, hence sediment concentration, and a sampling rate of 10 Hz was used. These probes operate by transmitting an infrared signal and measuring the strength of backscatterance by particles in the flow, hence the probes need to be at least 0.2 m from any solid object. For sediment of uniform size, their response is linear over a wide range of concentrations [e.g., *Lapointe*, 1992]. OBS probes are unaffected by visible portions of the electromagnetic spectrum, but are susceptible to the infrared band. Sediment-laden laboratory flows have low infrared transmission and are not susceptible to contamination by external sources [*van Rijn*, 1994].

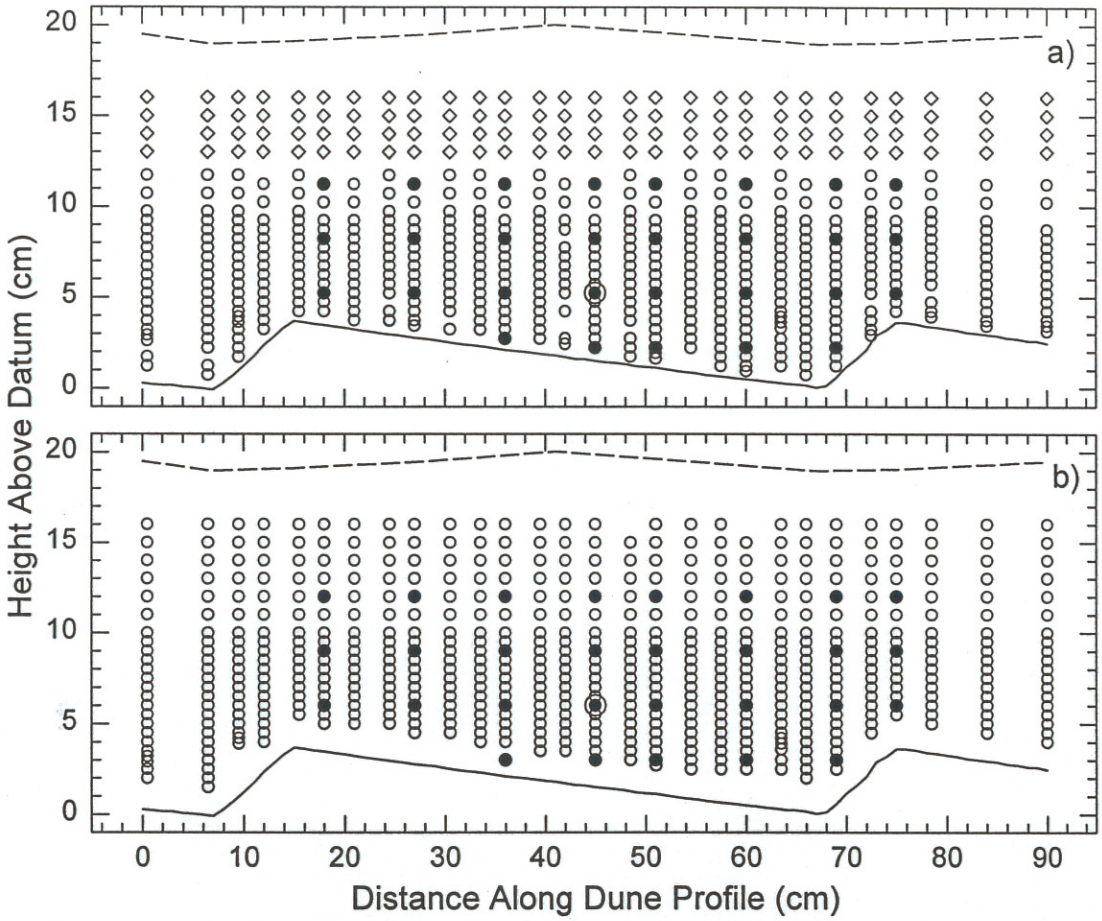

Figure 2: Locations of (a) ADV (circles) and ECM (diamonds) velocity and (b) OBS turbidity measurements. The solid circles indicate points where spectral analysis was performed, and the circled symbols indicate where co-spectral analysis was performed. The solid line is the bed profile, and the dashed line is the water surface profile.

Instrument gain and zero values for each OBS probe were adjusted for the present conditions. Calibration was accomplished by obtaining vertical profiles of turbidity in conjunction with direct sampling of the suspended sediment concentrations at 14 to 18 positions. A mixture of water and sediment was siphoned at each point using a 4-mm diameter copper tube that was placed into the flow and oriented parallel to the mean flow direction. Approximately 0.5 l of fluid and sediment were extracted over a period of about 60 s, and each sample was decanted, oven-dried, and weighed to determine total sediment mass. Regression analysis derived the relationship between turbidity and sediment concentration for each probe in mg l^{-1} (Figure 3). The zero-value for the OBS probes was user-defined and zero voltage did not correspond to zero sediment concentration. Because the experiment was conducted over several days, water quality,

hence turbidity, varied causing some drift in the concentration data. Therefore, each concentration profile was normalized by the profile mean, and then multiplied by the spatially-averaged concentration. This water quality correction adjusted the time-series so that accurate values of mean sediment concentration could be obtained. The characteristics of signal variance remained unaffected.

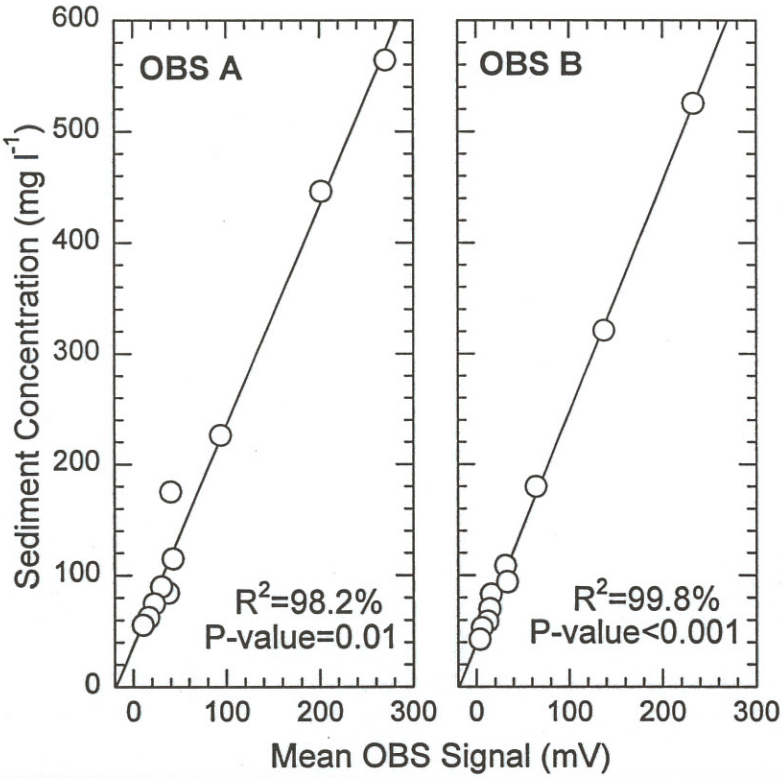

Figure 3: Calibration curves relating the mean analog OBS signal to time-averaged suspended sand concentration.

A 0.90-m test section was established over the twentieth dune, 12 m downstream of the flume entrance. A total of 28 profiles of velocity and sediment concentration were taken along the center line of the flume and spaced 0.025 to 0.035 m apart, each profile consisting of 15 to 20 vertical measurement locations (Figure 2 shows ADV and OBS positions). Velocity and concentration were sampled for 120 s at each point. The lowest point in each velocity profile was 0.005 m above the bed. Due to their minimum working depth, these ADV probes were restricted to the lower 0.12 m ($z/d \leq 0.69$ where z is height above the bed) of the flow field.

Each ADV had a dedicated computer, and the ECM and all OBS probes were linked to a data acquisition board in another computer. The OBS signals were time-synchronized with the two ADVs using a configuration where one ADV sent a 5 V signal to initiate data collection at all

probes. Time drift in the DOS-clocks was considered negligible because each concomitant data string was only 120 s long.

3.1. Mean Flow Field

The mean and turbulent flow structure over fixed dunes have been described previously [*Nelson et al.*, 1993; *McLean et al.*, 1994; *Bennett and Best*, 1995). The main characteristics of the flow are: (1) convergent, accelerated flow over the dune stoss, (2) flow separation at the dune crest, (3) flow reattachment at approximately 3.5 to 4.5H [*Engel*, 1981], (4) a turbulent wake and shear layer originating at the crest, extending and expanding downstream, and (5) an outer, overlying wake region. Each region has diagnostic turbulence signatures that are important in sediment transport processes (see references above). Of particular interest here is the shear layer or wake region and its turbulence characteristics. This wake region resembles flow behind a cylinder [*McLean*, 1990], and three-dimensional rollers, 'kolks', and 'internal boils' occur along the shear layer, dominating the macroturbulent flow structure.

Contour maps for all flow and turbulence parameters were constructed [*Venditti*, 1997], but only select results are presented here. Figure 4 shows profiles of time-averaged streamwise U, cross-stream V, and vertical W flow velocities, defined as

$$U = \frac{1}{n}\sum_{i=1}^{n} u_i \; ; \; V = \frac{1}{n}\sum_{i=1}^{n} v_i \; ; \; W = \frac{1}{n}\sum_{i=1}^{n} w_i \qquad (1)$$

where u_i, v_i, and w_i are individual velocities and n is the total number of measurements. These profiles show the diagnostic characteristics as described above, including a well-developed shear layer. Root-mean-square velocities for the streamwise rms u, cross-stream rms v, and vertical rms w components, defined as

$$\text{rms}\, u = \left[\frac{1}{n}\sum_{i=1}^{n}(u_i - U)^2\right]^{0.5} \; ; \; \text{rms}\, v = \left[\frac{1}{n}\sum_{i=1}^{n}(v_i - V)^2\right]^{0.5} \; ;$$

$$\text{rms}\, w = \left[\frac{1}{n}\sum_{i=1}^{n}(w_i - W)^2\right]^{0.5} \qquad (2)$$

are greatest near the separation cell, along the shear layer, and in near-bed regions (Figure 4), consistent with observations from previous studies (see references above).

Profiles of velocity and their root-mean-square values compare favorably with those observed in the fixed-bed experiments of *Bennett and Best* [1995]. Although the profiles are normalized by d and u_{*R}, these data are not identical suggesting that quantitative similarity is restricted to small variations in dune shape, H/d, H/λ, and Fr.

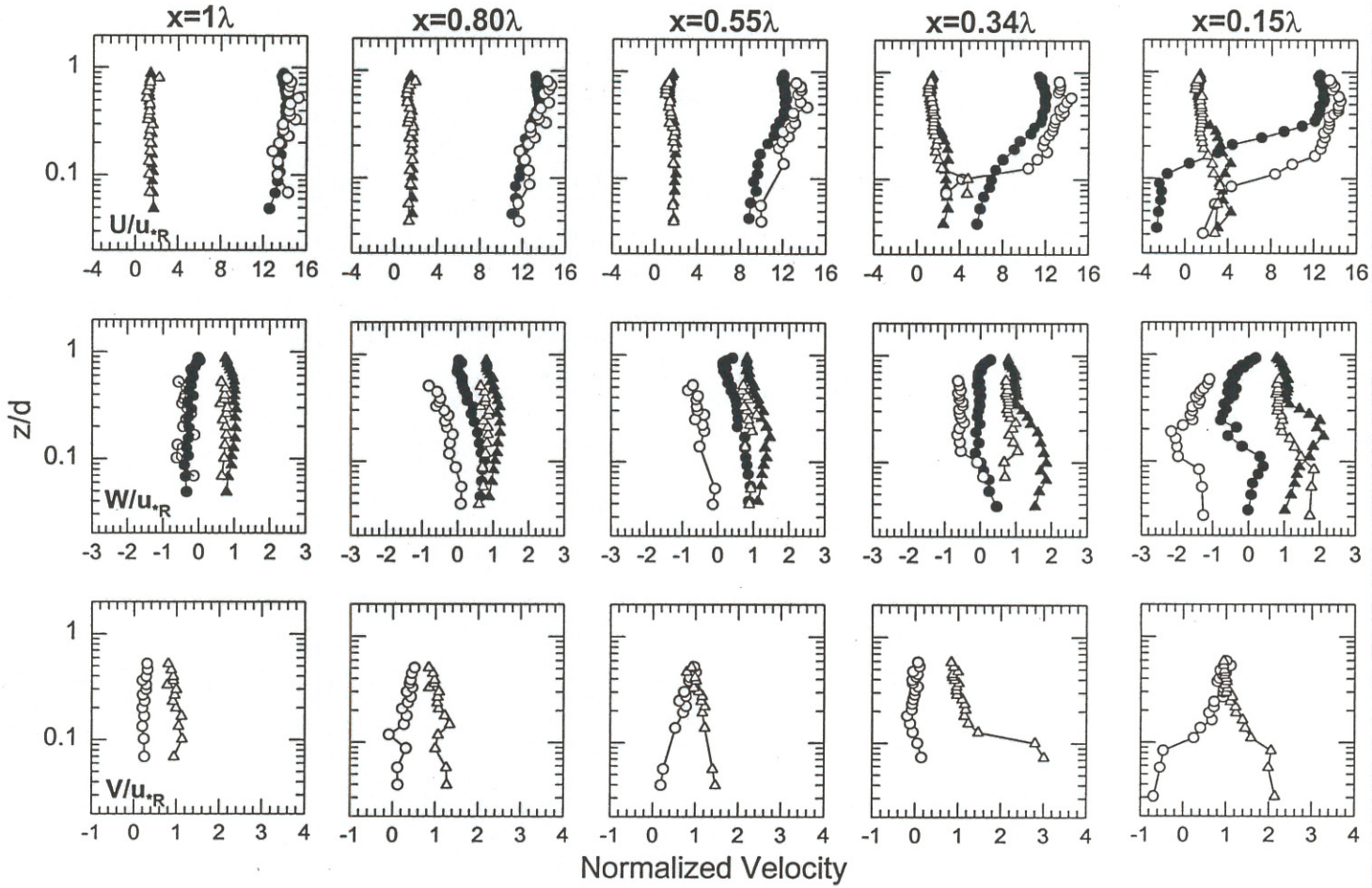

Figure 4: Select vertical profiles of streamwise (U) and vertical (W) flow velocity and their root-mean-square values (open symbols) normalized by u_{*R}, and compared to profiles measured by Bennett and Best [1995; solid symbols]. Circles are mean values and triangles are root-mean square values. Also shown are the mean and rms values for the normalized cross-stream (V) velocity component. Positions are given relative to the dune length λ.

3.2. Turbulent Flow Field

The spatial characteristics of turbulence over dunes can be defined by examining simple but informative turbulence and velocity relations. Contour maps of select turbulence parameters are shown in Figure 5.

The spatial distribution of the Reynolds stress τ_{uw}, defined as

$$\tau_{uw} = -\rho\overline{u'w'} \tag{3}$$

where $u' = u_i - U$, $w' = w_i - W$, and the overbar indicates a time average, delineates the wake region downstream of flow separation. Maximum values of τ_{uw}, as much as $3\tau_0$, occur within the separation cell, along the shear layer, and at flow reattachment (Figure 5a). Maxima of the other Reynolds stresses, τ_{uv} and τ_{vw}, also occurred within the separation cell and along the shear layer [*Venditti*, 1997], but both stresses tended toward zero in the rest of the flow field.

The distribution of τ_{uw} was used to calculate a spatially averaged bed shear stress (τ_R). This was accomplished by averaging τ_{uw} along constant heights above the trough over one dune length, and constructing a single Reynolds stress profile of the spatially averaged values [see *McLean et al.*, 1994; *Bennett and Best*, 1995]. A linear regression through τ_{uw} projected to the mean bed height resulted in $\tau_R = 1.69$ Pa, $u_{*R} = 0.041$ m s^{-1}, $\tau_R = 0.73\tau_0$, $u_{*R} = 0.85u_*$, and $ff_R = 0.064$ (Table 1).

A measure of structural coherence of the turbulence is the boundary layer correlation coefficient R_{uw}, defined as

$$R_{uw} = \frac{-\overline{u'w'}}{\text{rms}\,u \cdot \text{rms}\,w} \tag{4}$$

R_{uw} can also be considered as a locally normalized Reynolds stress or simply a correlation between the streamwise and vertical velocity signals. Hence, its distribution over the dune is closely correlated to the distribution of τ_{uw}. In clear-water, flat-bed flows, R_{uw} varies from 0.5 in near bed regions, and from 0.3 to 0 at 0.7 to 1.0d [*Nezu and Nakagawa*, 1993]. At the reattachment point and within the internal boundary layer, $R_{uw} \approx 0.2$ to 0.35, whereas in the outer flow region, $R_{uw} \approx 0.3$ to 0.5 (Figure 5b). In each of these regions, values of R_{uw} are similar to flat-bed flows. Low values of R_{uw} within the internal boundary layer downstream of flow reattachment may be due to turbulent eddies intermittently impacting the bed [see *Nelson et al.*, 1993; *Müller and Gyr*, 1986]. In the wake region, $R_{uw} \approx 0.5$ to 0.6, and within flow separation $R_{uw} \approx 0.6$ to 0.7. In these two regions, turbulence is strongly associated with τ_{uw} and

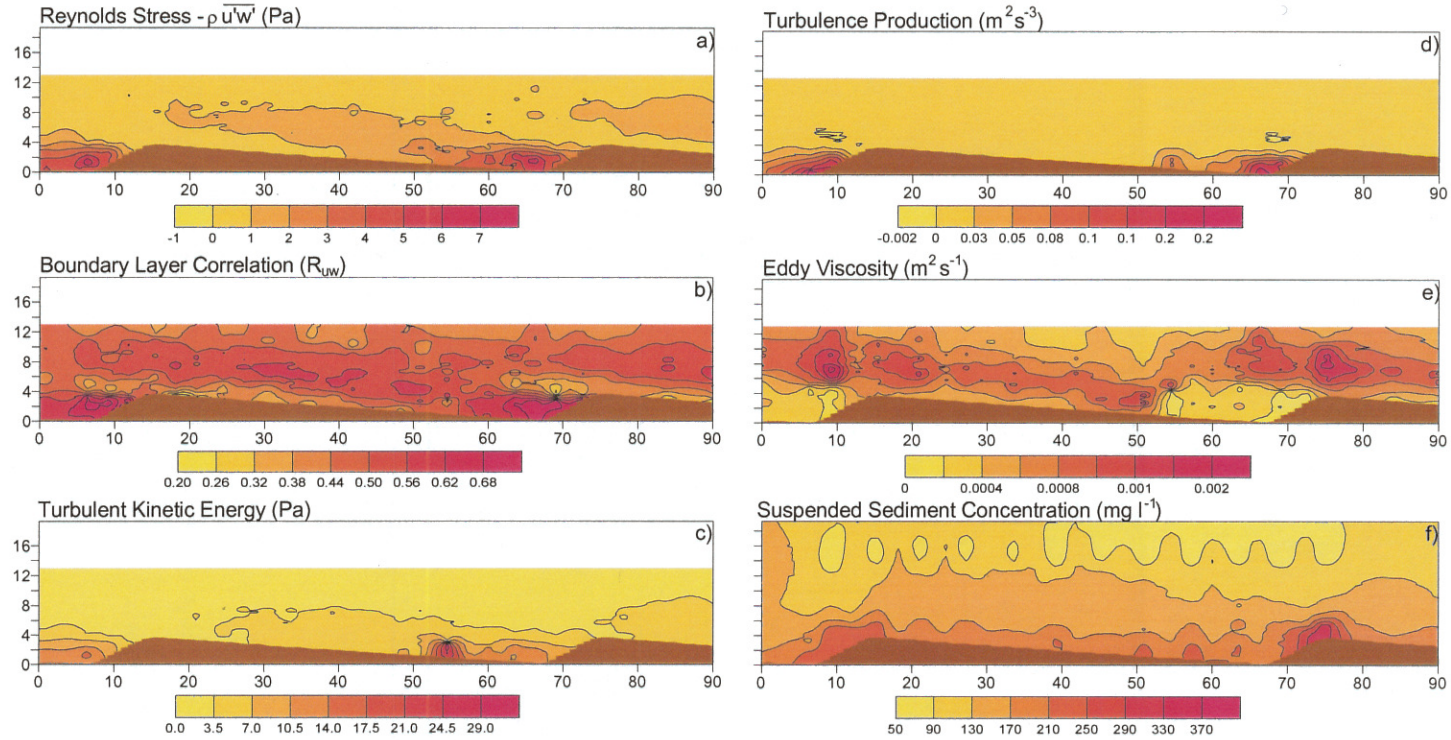

Figure 5: Contour maps of time-averaged turbulence quantities: (a) Reynolds stress τ_{uw}, (b) boundary layer correlation R_{uw}, (c) turbulent kinetic energy TKE, (d) turbulence production by vertical shear P, (e) eddy viscosity ε (diffusivity), and (f) suspended sediment concentration. Flow is from right to left, and horizontal and vertical axes are in cm.

the direct result of shear layer development. The separation cell and shear layer are the most turbulent areas over dunes and structural coherence as defined by (4) is the greatest. Correlation coefficients using the other Reynolds stresses were close to zero and display no spatial dependency [*Venditti*, 1997].

The turbulent energy extracted from the mean flow by the motion of turbulent eddies [*Tennekes and Lumley*, 1972] is the turbulent kinetic energy *TKE*, defined as

$$TKE = \frac{1}{2}\rho\left(\overline{u'^2} + \overline{v'^2} + \overline{w'^2}\right) \tag{5}$$

and its production involves interactions of the Reynolds stresses with the mean velocity gradients (see below). Maximum values of *TKE* occur at reattachment and large values occur within the separation cell (Figure 5c): at $H = 5, TKE \approx 17\tau_R$. This *TKE* distribution highlights the importance of reattachment in the generation of highly turbulent eddies [*Iseya and Ikeda*, 1986; *Kostaschuk and Church*, 1993; *Nezu and Nakagawa*, 1993].

The magnitude of turbulence production by vertical shear P is defined as

$$P = -\overline{u'w'}\frac{\partial U}{\partial z} \tag{6}$$

Because velocity gradients are non-linear, high-order polynomials were fitted to determine $\partial U/\partial z$. Figure 5d shows that maximum turbulence production occurs within the flow separation cell and at flow reattachment.

Eddy viscosity ε, as defined in the mixing-length concept, is the strength or magnitude of the turbulent eddies within the flow and is defined as

$$\varepsilon = \frac{-\overline{u'w'}}{\partial U/\partial z} \tag{7}$$

The distribution of eddy viscosity should bear a strong relationship to P because $\varepsilon = P/(\partial U/\partial z)^2$. However, P varies over three orders of magnitude while ε varies by a factor of 10 limiting any substantial comparison between their distributions in Figure 5. In flat-bed flows, the distribution of eddy viscosity is generally parabolic, reaching a maximum near $0.5d$ [*Bennett et al.*, 1998]. This parabolic distribution is the result of a linear decrease in τ_{uw} with z and a linear increase in U with $\ln z$. As already shown, neither distribution of τ_{uw} or U is similar to flat-bed flows. Thus eddy viscosity is strongly dependent upon bedform position and can vary by as much as an order of magnitude (Figure 5e). Over the dune crest, the distribution of ε resembles a flat-bed flow. In the flow separation cell, outer flow region, and near the bed, ε tends toward a minimum. The core of high ε values over the dune crest extends out over the separation cell, shifting downward

toward the bed past reattachment as the internal boundary layer initiates and grows. Farther downstream, this core extends up and outward toward the next crest [see also *Nelson et al.*, 1993].

The parameters described above show that the separation cell and its associated flow structures dominate the turbulence characteristics over dunes. Large values of τ_{uw}, R_{uw}, and *TKE* characterize the separation cell and the shear layer. In these regions, $\tau_{uw} \approx 3\tau_0$ and $\tau_{uw} \approx 4\tau_R$. Large values of *TKE* and *P* clearly indicate the location of the reattachment point. The other Reynolds stresses, τ_{uv} and τ_{vw}, have little influence on fluid momentum transfer and macroturbulence generation. The structural coherence of the flow related to vertical shear is much higher within and near flow separation than in flat-bed flows. Eddy viscosity can vary by an order of magnitude, and its distribution also shows this spatial dependence on bedform position.

3.3. Suspended Sediment Concentrations

Suspended sediment concentration varies both vertically within the flow and spatially along the dune (Figure 5f). Concentration reaches a maximum over the dune crest as bedload sediment moving along the stoss is suspended at flow separation and as sediment trapped within the separation cell is recirculated. In fact, the launch of sediment off the dune brink appears to account for nearly all the suspension (Figure 5f). The sediment concentration is high at flow reattachment where there is a double peak upstream and downstream of the peak in *TKE* (Figures 5c and 5f). Distribution of concentration also appears to be affected by the turbulent characteristics of the shear layer. As large values of τ_{uw} and ε extend outward into the flow downstream of reattachment, suspended sediment is advected along with these regions of high turbulence (see the 130 mg l^{-1} contour line, Figure 5f).

Shown in Figure 6 are profiles of suspended sediment flux, $q_{s(z)}$, defined as

$$q_{s(z)} = C_{(z)} \cdot U_{(z)} \qquad (8)$$

where (z) represents at-a-point time averages and all necessary corrections for units are made. The largest sediment flux and greatest vertical gradient in transport rate occurs at the dune crest. Sediment flux decreases significantly in the dune trough (separation cell) due to low flow velocities. The outer flow region shows very little vertical variation in suspended sediment flux. Spatially-averaged suspended sediment transport rate is 0.065 kg m^{-1} s^{-1}.

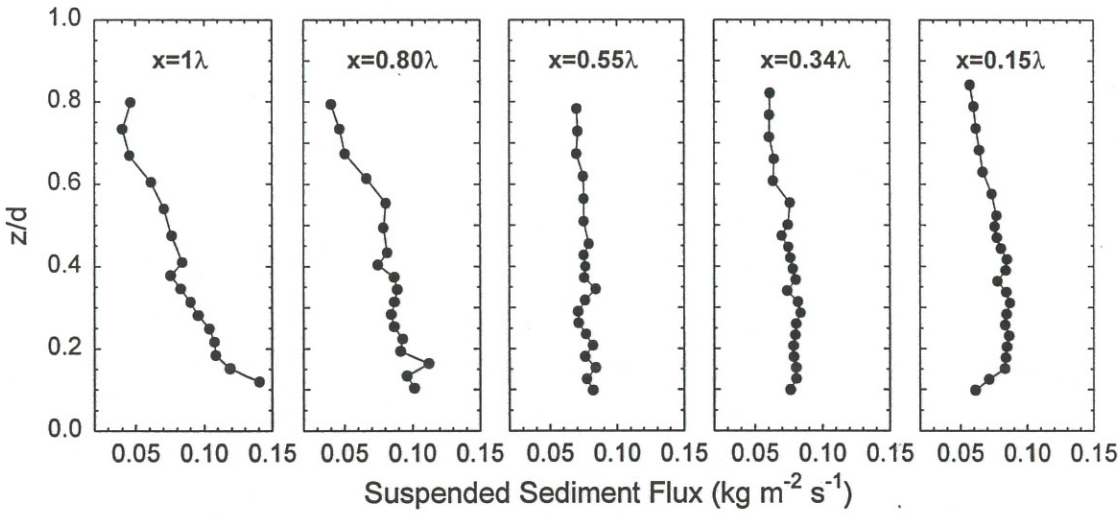

Figure 6: Selected vertical profiles of suspended sediment flux as a function of dune position.

SPECTRAL ANALYSIS

4.1. Velocity time-series

Univariate spectral analysis was performed on velocity time-series whose locations are identified in Figure 2. Since these locations have an approximate equal-spacing in the streamwise direction, velocity spectra are plotted as eight sparse profiles in Figure 7. Each 82-s time-series, corresponding to 2048 measurements, was detrended, and spectral estimates for each velocity component were calculated at 0.05 Hz intervals from 0 to 12.5 Hz using a bandwidth B_w of 0.8908 Hz in the spectral algorithm. By default, spectral results are biased towards the low frequency range. Velocity spectra are plotted in variance-preserving form where spectral energy density $P(f)$ (cm^2 s^{-2} Hz^{-1}) is multiplied by frequency f [see *Soulsby*, 1977; *Panofsky and Dutton*, 1984; *Kaimal and Finnegan*, 1994]. The area under the spectrum of $f \cdot P(f)$ against $\log f$ represents the total variance, and peaks in the broad spectrum correspond to the frequency of an energetic mean or dominant eddy size passing the sensor [*Boppe and Neu*, 1995]. Confidence intervals for each spectrum were calculated using the χ^2 method where upper and lower confidence intervals are given by

$$\frac{B_w f \cdot P(f)}{\chi^2_{0.95}} \text{ and } \frac{B_w f \cdot P(f)}{\chi^2_{0.05}} \qquad (9)$$

respectively [*Jenkins and Watts*, 1968]. For each velocity spectrum the upper confidence interval is $1.2795\, f \cdot P(f)$ and the lower confidence interval is $0.8031\, f \cdot P(f)$ at the 95 % confidence limit. Since the focus of the present study is to evaluate the distribution of energy in the frequency domain, these confidence intervals are not included in the plots of spectral energy.

Spectra for the velocity time-series all generally peak from 1 to 4 Hz. The streamwise energy spectra generally peak at lower frequencies (*ca.* 1 to 2 Hz; e.g. 6-45) than the vertical and cross-stream energy spectra (*ca.* 2 to 4 Hz; e.g. 6-51, Figure 7). Differences between the peak frequencies in the streamwise spectra and other velocity components may be due to eddy shape: eddies may be elliptical as they advect and diffuse away from the shear layer presumably because streamwise eddy lengths are stretched and elongated by the mean flow. In the near-bed and wake regions, spectral energies are generally larger than in the rest of the flow field and have well-defined recurrence periods (e.g. 3-60, 3-51 6-36, 6-45, 9-51, 9-45). Outside these regions, energies are smeared across a large frequency range and are generally smaller, i.e. eddies are not passing the sensors with a well-defined period but rather a range of sizes, trajectories, and magnitudes (e.g. 12-36, 12-69, 12-75). Near the bed, there is a clear decline in the peak spectral energy from the region of flow reattachment.

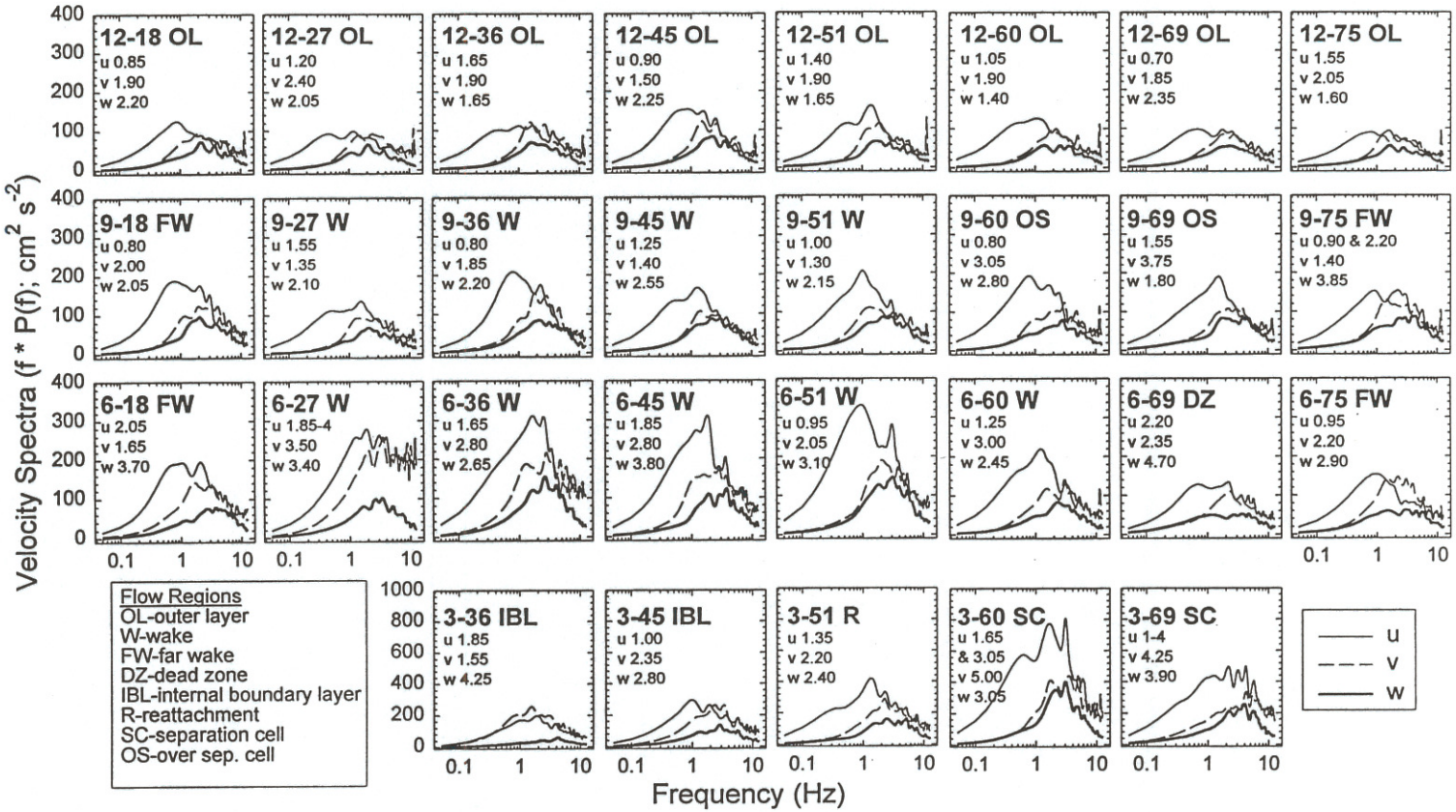

Figure 7: Spectral analysis of selected velocity time-series (where 12-18 refers to a height of 12 cm above the trough, and 18 cm upstream of the downstream end of the working section; see Figure 2a for locations). The peak frequencies for each velocity component within each specific flow region are shown in the upper left corner of each panel. Thin solid lines are the streamwise spectra, dashed lines are the cross-stream spectra, and thick solid lines are the vertical velocity spectra.

The spatial distribution of the velocity spectra can be interpreted as characteristic of a perturbed shear layer having the following characteristics: (1) a 'dead zone' or linear stability regime extending downstream of the dune crest that grows into a wave structure, and (2) a non-linear instability regime where Kelvin-Helmholtz waves develop and break along the shear layer that advect and diffuse vertically and downstream [see *Ho and Huerre*, 1984]. This pattern is exemplified in energy spectra along the shear layer and wake regions. Immediately downstream of the dune crest (location 6-69, Figure 7), little evidence exists that eddies pass the sensor with a single recurrence period because the spectra are flat over a wide range of frequencies (0.5 to 2 Hz). Farther downstream of the crest, spectra reveal this wave structure signature: sharper and well-defined peaks corresponding to larger variances than in the 'dead zone'. This pattern suggests that eddies are Kelvin-Helmholtz instabilities along the shear layer as discussed in previous experimental [e.g., *Müller and Gyr*, 1982, 1986; *Bennett and Best*, 1995] and field studies [e.g., *Rood and Hickin*, 1989; *Kostaschuk and Church*, 1993].

Moving downstream and vertically from the perturbed shear layer, the magnitude of energy represented by the peak frequencies decreases, but the dominant frequency remains the same (Figure 7). Eddies produced along the shear layer diffuse and advect turbulent energy into the rest of the flow field, thus determining the characteristics of the velocity spectra. Above the shear layer, eddies mix and amalgamate with the mean flow structure, but relict frequencies (i.e., relict motions) still persist (Figure 7). Although turbulent energy may be derived from boundary layer and shear layer interactions, the dominant spectral signal originates along the shear layer, propagating downstream and vertically from this source. This spectral signature is presumably more distinct with maximum-height bedforms than with bed-waves of low relief.

The frequency f_s of eddies and shedding vortices in turbulent flows can be defined using a Strouhal number [*Levi*, 1983]

$$f_s = \frac{fl}{U} \tag{10}$$

where l is a relevant length scale. For turbulent flow over dunes, l can be the bedform height H, the mean flow depth d, or the inner boundary layer depth. In the lee of the bedform, mean f_s for the u-component is 0.52 using $l = d$ and 0.12 using $l = H$. These Strouhal numbers can be compared to other investigations characterizing eddy shedding from bedforms based on spectral and flow visualization techniques. For laboratory studies, f_s ranges from 0.33 to 0.50 using $l = d$ and 0.10 to 0.25 using $l = H$ [*Nezu et al.*, 1980; *Itakura and Kishi*, 1980; *Ikeda and Asaeda*, 1983; *Müller and Gyr*, 1986]. For field studies, f_s ranges from 0.30 to 0.38 using $l = d$ and 0.10 to 0.12 using $l = H$ [*Kostaschuk and Church*, 1993; *Venditti*; 1997]. The consistency of values is

quite remarkable, demonstrating further that macroturbulence associated with a perturbed shear layer has diagnostic spectral characteristics. More detailed information on the variation of f_s over dune bedforms can be found in *Venditti and Bauer* [in prep].

4.2. Sediment concentration time-series

Time-series of sediment concentration collected at the same time and location as the velocity time-series were also selected for spectral analysis. Each OBS time-series was detrended, and spectral estimates were calculated at 0.05-Hz intervals from 0 to 5 Hz using a bandwidth of 0.4711 Hz. A total of 102.4 s of concentration measurements were used corresponding to 1024 data points in each time-series. For each concentration spectrum the upper confidence interval is $1.4166\, f \cdot P(f)$ and the lower confidence interval is $0.7439\ f \cdot P(f)$ at the 95 % confidence limit.

Energy spectra for the concentration data are shown in Figure 8. Because the magnitude of variance was unchanged by the corrections applied to the sediment concentration records, all spectra were normalized by the variance of each time-series, producing spectra with a normalized energy ranging from 0 to 3. The normalization process applied negates any interpretation of the relative energy contained at a specific frequency (i.e., the area under the spectral curve), but the frequency information remains the same. Spectral energy peaks around 0.5 to 2 Hz with the strongest peaks generally occurring at 1 Hz (e.g. 9-75, 9-60, 3-36; Figure 8). These energy peaks appear to be coincident with the spectral peaks in the streamwise velocity component (Figure 7). Given the strongly peaked shapes of the concentration spectra, it appears that the suspended sediment is a very sharp delimiter of the most effective eddy scale. Values of f_s are 0.47 using $l = d$ and 0.11 using $l = H$, in agreement with non-dimensional frequencies for the u-component of velocity presented above.

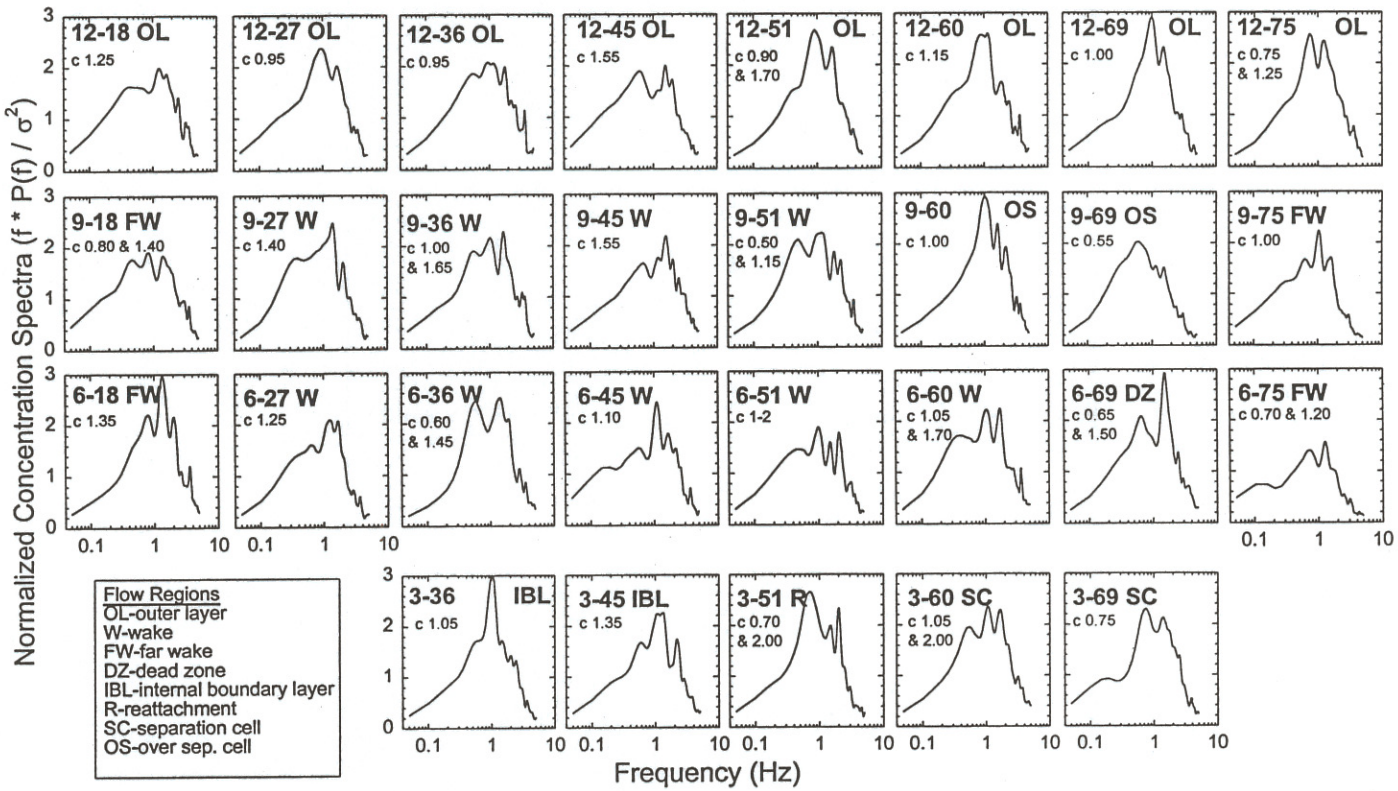

Figure 8: Spectral analysis of selected concentration time-series normalized as described in text (where σ^2 is total variance; see Figure 2b for locations). Peak frequencies for concentration spectra are shown in the upper left corner of each panel.

CO-SPECTRAL ANALYSIS

Co-spectral analysis, which included calculation of the cross-spectrum and the squared-coherency spectrum, was applied to the time-series to examine further the link between sediment suspension and the production, advection, and diffusion of turbulence. Cross-spectra show whether frequency components in one time-series are associated with large or small fluctuations at the same frequency in the other time-series. The squared-coherency spectrum is a correlation coefficient defined at each frequency [*Jenkins and Watts*, 1968]. Co-spectral analysis requires two time-series to be sampled at the same frequency. Therefore, the 25-Hz velocity time-series were low-pass filtered to 10 Hz, interpolated to 100 Hz, then resampled at 10 Hz. Comparison of the time-series used in the co-spectral analyses with the spectral analyses described above showed no difference in results. Each time-series was detrended, and co-spectral estimates were calculated at 0.05-Hz intervals from 0 to 5 Hz using a bandwidth of 0.4711 Hz in the co-spectral algorithm. A total of 102.4 s of the velocity and concentration measurements were used corresponding to 1024 data points in each time-series.

Co-spectral analysis was performed at several locations within the flow field, but only one example is described here at a point near the bed and in the wake (6-45; see Figure 2 for location). Spectra at this location show a defined peak in the u-component at 1.85 Hz and peaks in the w-component at 1.90 and 3.80 Hz (Figure 7). The cross-spectrum of u and w shows two strong peaks: at 1 to 2 Hz (largest negative covariance at 1.70 Hz) and 3 to 5 Hz (Figure 9a). The squared-coherency spectrum shows good correlation on the rising limb of the spectrum and again at about 1.65 Hz (Figure 9b). The secondary peak in the u against w cross-spectrum is not recognized in the squared-coherency spectrum suggesting it is relatively unimportant when compared to the primary peak.

The concentration spectrum at this measurement location displays a strong peak at 1.65 Hz in agreement with u against w cross-spectrum (Figure 9c). Cross-spectra of u against c, v against c, and w against c all appear to display some association between velocity components and concentration (Figure 9d). However, the squared-coherency spectra fail to reveal any peak in the velocity spectra that can be correlated with the peak in the concentration spectrum (Figure 9e). Although it would appear qualitatively that some correlation between velocity and concentration is present, the co-spectral results demonstrate that no such correlation exists. These co-spectral results were observed systematically in all cases.

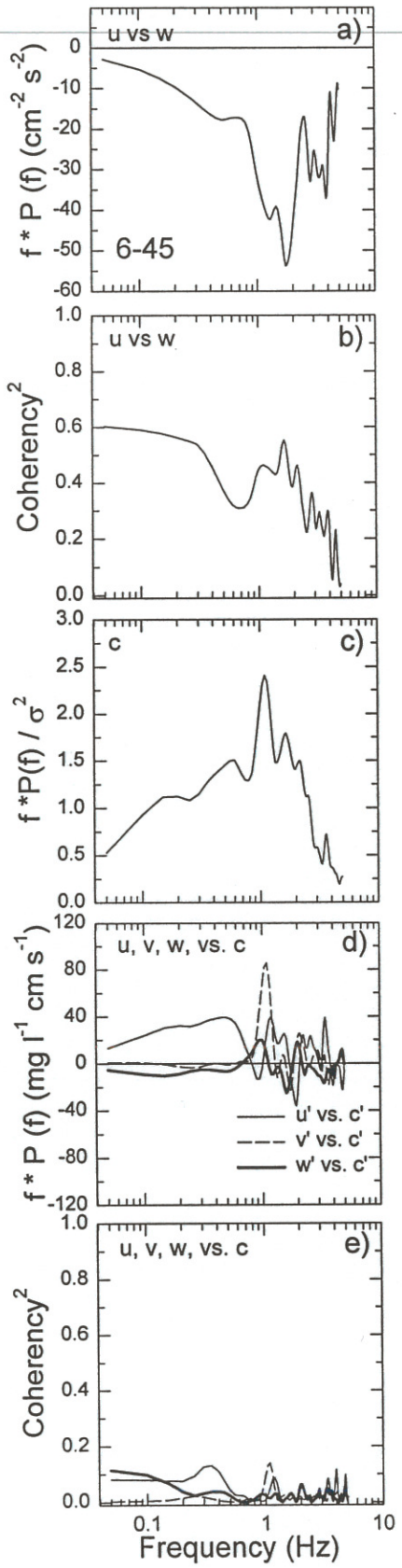

Figure 9: Co-spectral results for a measurement location in the near-bed region (6-45; see Fig. 3) displaying: (a) streamwise u velocity against vertical w velocity, and (b) squared-coherency spectra. Also shown are (c) the concentration spectrum, and (d) u against suspended sediment concentration c (thin solid curve), cross-stream v velocity against c (dashed curve), and w against c (thick solid curve) with the (e) squared-coherency spectra.

INTEGRAL TIME AND LENGTH SCALES

Autocorrelations for the velocity and concentration time-series were derived to determine integral time and length scales. An integral time scale is the time an eddy requires to pass a given point in the flow, and an integral length scale is the characteristic eddy dimension. Corrections applied to the OBS time-series for variable turbidity had no effect on the derived autocorrelation functions.

The Eulerian integral time scale (T_E) is defined as

$$T_E = \int_0^k R(t)\mathrm{d}t \tag{11}$$

where $R(t)$ is the autocorrelation function, dt is the lag distance, and k is the time step at which $R(t)$ is no longer significantly different from zero [*Tennekes and Lumley,* 1972]. In general, $R(t)$ approached zero asymptotically. In those cases when $R(t)$ approached and then oscillated about a zero value, k was determined when $R(t) = 0.01$. With a *Taylor* [1935] approximation, the Eulerian integral length scale (L_E) is defined as

$$L_E = T_E \cdot U \tag{12}$$

where U is measured at-a-point.

Integral time scales for the velocity components did not vary significantly with bedform position [*Venditti*, 1997], thus spatially-averaged profiles of T_E are shown in Figure 10a. Time scales for the streamwise $T_{E(U)}$, cross-stream $T_{E(V)}$, and vertical $T_{E(W)}$ velocities are about 0.20, 0.06, and 0.06 s, respectively, $T_{E(U)} > T_{E(V)}, T_{E(W)}$ and $T_{E(V)} \approx T_{E(W)}$. Values of T_E for all velocity components are approximately 25% of the peak frequencies described above. Moreover, the integral time scale results parallel the spectral results: (1) u-component has a lower peak frequency and larger T_E as compared to v- and w-components, and (2) the peak frequencies and T_E values for v and w are the same. Integral time scales for sediment concentration $T_{E(C)}$ range from 0.24 s near the bed to 0.30 s at 0.12 m above the trough (Figure 10a), and these values resemble more closely the u-component results, i.e. $T_{E(C)} \approx T_{E(U)}$.

Streamwise eddy length scales $L_{E(U)}$ range from 0.065 m near the bed to 0.135 m at 0.12 m above the trough (Figure 10b) and are grossly related to height above bed, i.e. $L_{E(U)} \approx z$. Cross-stream $L_{E(V)}$ and vertical $L_{E(W)}$ integral length scales are nearly invariant with distance from the trough, ranging from 0.020 to 0.030 m, and are grossly related to dune (step) height, i.e. $L_{E(V)} \approx L_{E(W)} \approx H$. The integral length scale for concentration $L_{E(C)}$ increases with flow depth,

from about 0.085 m near the bed to 0.160 m at 0.12 m above the trough (Figure 10b), similar to the u-component, i.e. $L_{E(C)} \approx L_{E(U)} \approx z$.

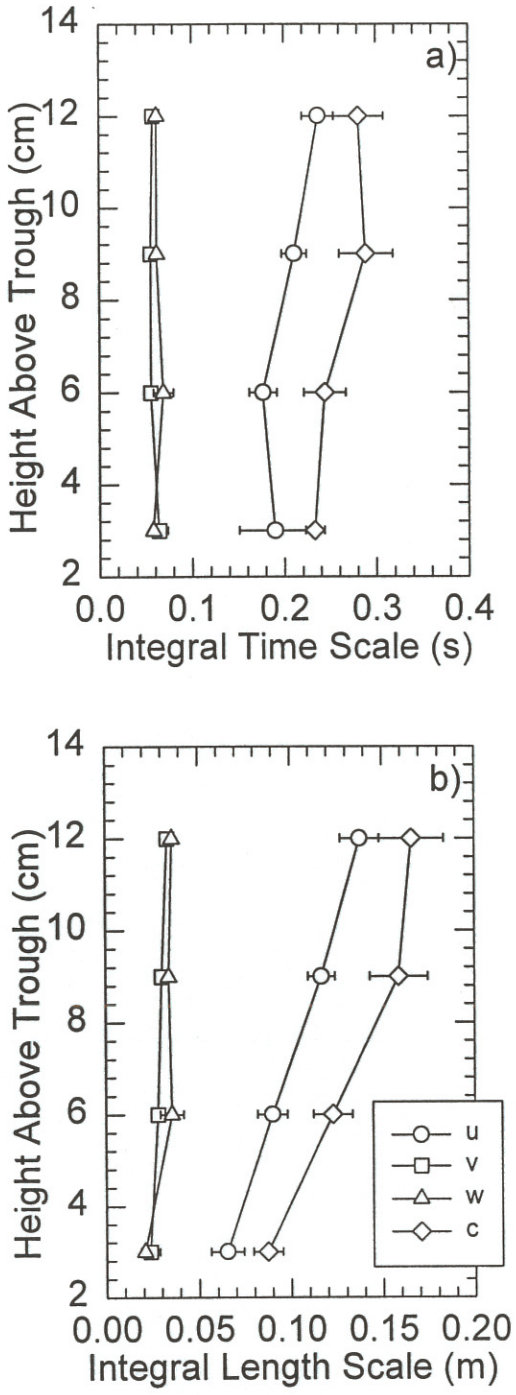

Figure 10: Vertical profiles of spatially-averaged integral (a) time and (b) length scales. Refer to Figure 2 for locations. Error bars are standard error of the mean.

CONCLUSIONS

Laboratory measurements of turbulent fluctuations in velocity and suspended sediment concentration were obtained synchronously over fixed, two-dimensional dunes using a sediment-starved flow. The observed turbulent flow field agrees well with observations in previous studies over both mobile and fixed dunes. High-magnitude Reynolds stresses (particularly τ_{uw}), turbulent kinetic energy *TKE*, and turbulence production due to vertical shear *P* characterize the separation cell, point of flow reattachment, and shear layer. Structural coherence of turbulence within and near the flow separation cell is much greater than observed in flat-bed flows. Eddy viscosity ε varies by an order of magnitude over the dune, and its distribution over the dune crest approaches that of a flat-bed flow. Suspended sediment concentration is highest over the dune crest and at flow reattachment, and the advection of sediment into the outer flow is associated with the extension of the shear layer and its associated flow structures.

Spectral analysis of velocity time-series reveals peak frequencies of 1 to 2 Hz for the streamwise component, and 2 to 4 Hz for the cross-stream and vertical components. In near-bed and wake regions, spectra show larger and better-defined peaks as compared to the rest of the flow field. The spatial distribution of energy spectra is interpreted as a perturbed shear layer where eddies form along a 'wave-like' structure, likely a Kelvin-Helmholtz instability that dominates the spectral signature of the velocity time-series. Suspended sediment concentration spectra reveal peak frequencies near 1 Hz, similar to the streamwise velocity, but these spectra show little variation over the dune bedform. Co-spectral analysis demonstrates that no correlation exists between the velocity components and concentration despite similar univariate spectral signatures.

Integral time-scales for the flow velocities range from 0.20 s for the streamwise component to 0.06 s for the cross-stream and vertical components, showing little variation along the dune. These time scales are approximately 25% of the observed peak frequencies. The integral time scale for concentration ranges from 0.24 to 0.30 s, similar to the streamwise component. Integral length scale for the streamwise component ranges from 0.065 m near the bed to 0.135 m at 0.12 m above the bed and is grossly related to flow depth. Cross-stream and vertical integral length scales range from 0.020 to 0.030 m and are grossly related to dune height. The integral length scale for concentration ranges from 0.085 m near the bed to 0.016 m at 0.12 m above the bed, similar to the streamwise velocity component.

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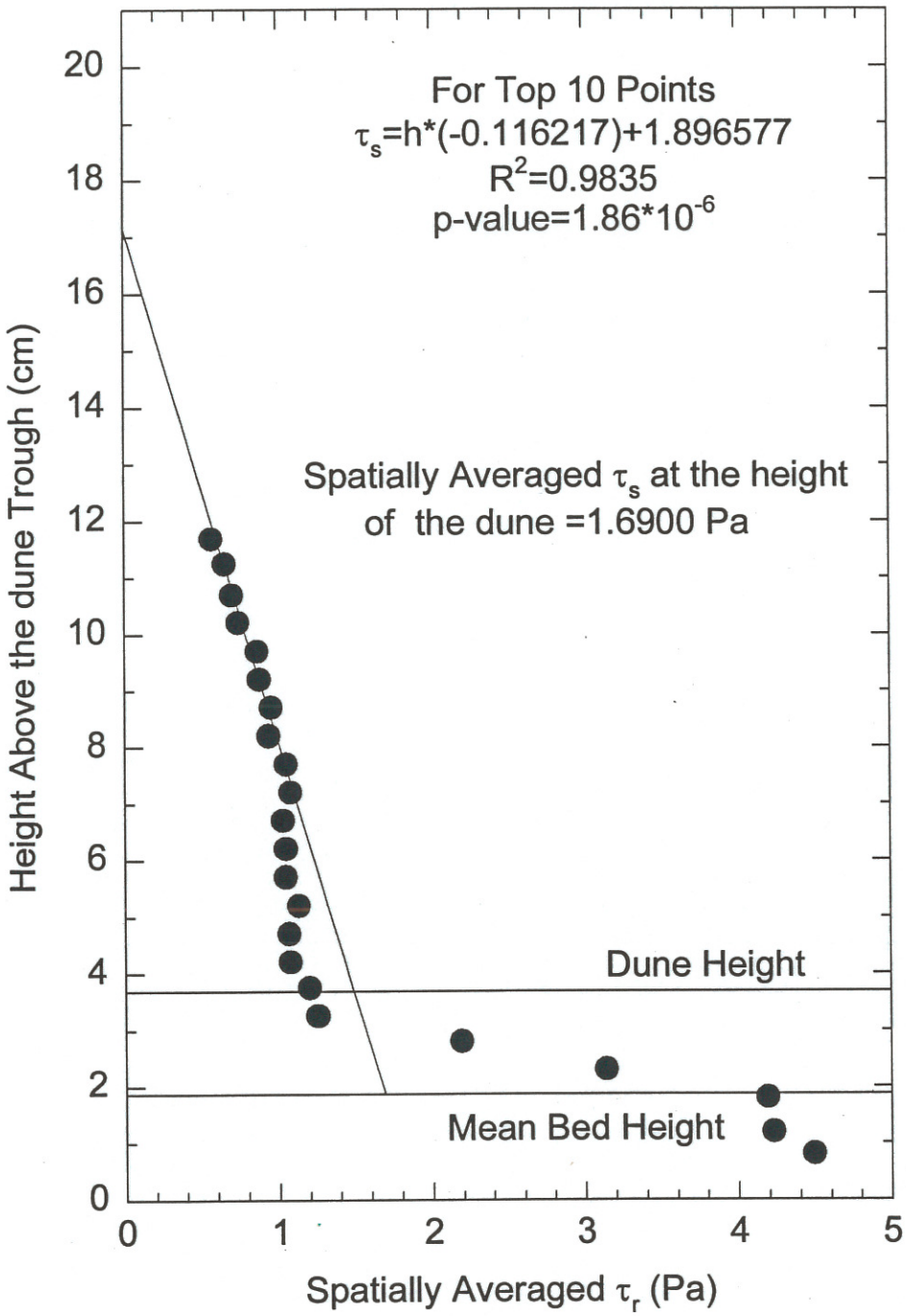
APPENDICES

Appendix A: Spatially Averaged Reynolds Stress

Figure A1: Vertical variation in the spatially averaged Reynolds shear stress used to determine the spatially averaged shear stress at the height of the dune (τ_s=1.69 Pa).

Figure A1: Vertical Variation of the Spatially Averaged Shear Stress



Appendix B: Velocity Moments and Turbulence Properties

Table B1: Velocity moments and turbulence parameters. x is the streamwise distance through the working section and z is the height above the datum in the dune trough (see Figure 2). U, V and W refer to the streamwise, cross-stream and vertical velocity directions respectively.

Table B1: Velocity Moments and Turbulence Parameters

x	z	Mean U	Mean V	Mean W	U RMS	V RMS	W RMS	U Skew	V skew	W Skew
90	11.23	0.5745	0.0525	-0.0252	0.0595	0.0396	0.0321	-0.4714	-0.1093	0.4915
90	10.23	0.5828	0.0541	-0.0275	0.0620	0.0383	0.0329	-0.5802	-0.0077	0.6020
90	8.73	0.5586	0.0486	-0.0235	0.0612	0.0415	0.0324	-0.5349	-0.0367	0.5001
90	8.23	0.5688	0.0513	-0.0229	0.0637	0.0427	0.0328	-0.6664	-0.2483	0.5113
90	7.73	0.5357	0.0456	-0.0180	0.0736	0.0467	0.0382	-0.5479	-0.1427	0.6791
90	7.23	0.5391	0.0458	-0.0188	0.0697	0.0444	0.0361	-0.4543	-0.0284	0.5548
90	6.73	0.5137	0.0404	-0.0089	0.0796	0.0501	0.0446	-0.3647	0.0434	0.6468
90	6.23	0.5349	0.0463	-0.0143	0.0705	0.0446	0.0351	-0.4796	0.0617	0.6244
90	5.73	0.5081	0.0457	-0.0066	0.0710	0.0471	0.0390	-0.3515	0.1048	0.5786
90	5.23	0.4738	0.0415	-0.0077	0.0740	0.0568	0.0437	-0.1540	0.0816	0.4007
90	4.73	0.4728	0.0489	-0.0080	0.0702	0.0597	0.0383	-0.0708	0.0166	0.4146
90	4.23	0.4832	0.0349	-0.0022	0.0670	0.0526	0.0333	0.0573	-0.1229	0.1974
90	3.73	0.4716	0.0232	0.0000	0.0648	0.0504	0.0336	0.0121	0.0350	0.2445
90	3.43	0.4715	0.0276	0.0019	0.0636	0.0571	0.0331	0.0604	0.0555	0.4708
90	3.13	0.4614	0.0172	0.0048	0.0638	0.0629	0.0302	0.2358	-0.1545	0.0445
90	2.83	0.4727	0.0235	0.0071	0.0622	0.0619	0.0241	-0.1000	0.1091	0.0747
84	11.23	0.5848	0.0554	-0.0259	0.0573	0.0386	0.0321	-0.4694	0.0076	0.5610
84	10.23	0.5957	0.0548	-0.0274	0.0576	0.0385	0.0320	-0.6100	-0.0293	0.6299
84	9.23	0.5715	0.0505	-0.0229	0.0626	0.0431	0.0340	-0.4263	-0.0528	0.5017
84	8.73	0.5768	0.0534	-0.0223	0.0598	0.0415	0.0320	-0.3939	0.0830	0.4306
84	8.23	0.5725	0.0482	-0.0214	0.0664	0.0428	0.0373	-0.6596	0.1995	0.8318
84	7.73	0.5448	0.0480	-0.0191	0.0675	0.0439	0.0354	-0.5041	0.0085	0.5906
84	7.23	0.5437	0.0458	-0.0117	0.0707	0.0470	0.0404	-0.3576	0.0094	0.6248
84	6.73	0.5334	0.0457	-0.0126	0.0740	0.0481	0.0390	-0.2121	-0.1476	0.5284
84	6.23	0.5186	0.0453	-0.0087	0.0652	0.0502	0.0392	-0.3870	0.1081	0.3649
84	5.73	0.5153	0.0393	-0.0102	0.0645	0.0499	0.0344	-0.1922	0.0365	0.3205
84	5.23	0.4936	0.0309	-0.0003	0.0569	0.0487	0.0361	-0.0169	-0.0212	0.1415
84	4.73	0.5294	0.0330	-0.0023	0.0644	0.0466	0.0364	-0.2514	0.0119	0.5334
84	4.23	0.4921	0.0303	0.0029	0.0615	0.0563	0.0343	0.0963	-0.0609	0.1504
84	3.73	0.5087	0.0316	0.0036	0.0649	0.0540	0.0282	-0.1090	-0.0423	-0.1342
84	3.43	0.4803	0.0202	0.0100	0.0526	0.0614	0.0258	-0.0592	0.0406	0.0518
78.5	11.72	0.5937	0.0083	-0.0036	0.0516	0.0560	0.0383	-0.1948	-0.0676	0.1644
78.5	10.72	0.6236	0.0057	0.0020	0.0572	0.0493	0.0285	-0.6388	-0.0863	0.1128
78.5	9.72	0.6217	0.0047	-0.0159	0.0530	0.0357	0.0310	-0.5562	0.0375	0.2355
78.5	9.22	0.6032	0.0024	-0.0167	0.0559	0.0371	0.0308	-0.3723	-0.0239	0.6464
78.5	8.72	0.6117	0.0053	-0.0175	0.0574	0.0367	0.0298	-0.4426	0.1812	0.5061
78.5	8.22	0.5923	0.0035	-0.0136	0.0648	0.0397	0.0318	-0.4821	0.1716	0.2556
78.5	7.72	0.5944	0.0026	-0.0110	0.0620	0.0388	0.0308	-0.2719	-0.0050	0.4329
78.5	7.22	0.5764	0.0010	-0.0086	0.0690	0.0432	0.0345	-0.2759	0.2262	0.5650
78.5	6.72	0.5891	0.0052	-0.0090	0.0628	0.0395	0.0333	-0.3063	0.0153	0.7176
78.5	6.22	0.5484	0.0059	-0.0010	0.0607	0.0461	0.0386	-0.1384	-0.0213	0.4911
78.5	5.72	0.5316	0.0001	-0.0047	0.0647	0.0427	0.0314	-0.0754	0.0735	0.5000
78.5	4.73	0.5399	0.0127	0.0013	0.0706	0.0412	0.0329	-0.0387	0.0595	0.3509
78.5	4.23	0.5612	0.0179	0.0020	0.0559	0.0506	0.0358	-0.2452	-0.0471	0.2679
78.5	4.22	0.5558	-0.0133	0.0145	0.0545	0.0454	0.0272	0.1349	-0.0156	0.2012
78.5	3.92	0.5522	-0.0077	0.0189	0.0567	0.0487	0.0247	0.0562	-0.0470	0.2577
75	11.23	0.6154	0.0217	-0.0404	0.0427	0.0315	0.0251	-0.5058	0.1297	0.4442
75	10.23	0.5930	0.0220	-0.0383	0.0565	0.0379	0.0313	-0.7276	0.1694	0.5432
75	9.23	0.5790	0.0204	-0.0396	0.0600	0.0411	0.0340	-0.3697	-0.1279	0.5186
75	8.73	0.5835	0.0147	-0.0372	0.0574	0.0367	0.0323	-0.4281	-0.0813	0.6539
75	8.23	0.5934	0.0227	-0.0443	0.0557	0.0389	0.0332	-0.3312	-0.0637	0.3825
75	7.73	0.5617	0.0193	-0.0344	0.0641	0.0387	0.0352	-0.2130	-0.0109	0.4177
75	7.23	0.5749	0.0209	-0.0352	0.0571	0.0390	0.0301	-0.2444	-0.0182	0.3630
75	6.73	0.5459	0.0258	-0.0297	0.0575	0.0421	0.0362	-0.1596	0.0247	0.2955
75	6.23	0.5761	0.0136	-0.0412	0.0537	0.0426	0.0282	-0.0674	0.2552	0.3613
75	5.73	0.5462	0.0253	-0.0418	0.0694	0.0573	0.0383	-0.1097	-0.0686	0.3945
75	5.23	0.5630	0.0184	-0.0297	0.0534	0.0428	0.0301	-0.0714	0.0459	0.2693
75	4.73	0.5402	0.0037	-0.0304	0.0514	0.0520	0.0312	-0.0022	0.1790	0.1478
75	4.23	0.5820	0.0162	-0.0291	0.0494	0.0460	0.0233	-0.0249	0.0865	0.1127
72.5	11.72	0.6159	0.0068	-0.0338	0.0544	0.0502	0.0337	-0.4831	-0.0508	0.0397
72.5	10.72	0.6256	0.0055	-0.0475	0.0550	0.0545	0.0335	-0.4152	-0.0438	-0.0662
72.5	9.72	0.6085	0.0053	-0.0505	0.0594	0.0580	0.0318	-0.3493	0.0589	0.1023
72.5	9.22	0.6114	0.0050	-0.0539	0.0548	0.0688	0.0375	-0.3158	0.1330	0.5496
72.5	8.72	0.6107	0.0036	-0.0176	0.0617	0.0356	0.0320	-0.5918	-0.1397	0.5571
72.5	8.22	0.5935	-0.0008	-0.0236	0.0594	0.0373	0.0311	-0.2536	-0.0126	0.4190
72.5	7.72	0.5928	-0.0005	-0.0212	0.0610	0.0378	0.0320	-0.1288	0.1662	0.4831
72.5	7.22	0.5877	-0.0022	-0.0217	0.0641	0.0375	0.0305	-0.2920	0.2533	0.3086
72.5	6.72	0.5728	0.0067	-0.0232	0.0549	0.0382	0.0342	-0.1541	0.1916	0.7307
72.5	6.22	0.5745	0.0020	-0.0233	0.0582	0.0414	0.0336	-0.2289	0.0716	0.4882

Table B1: Velocity Moments and Turbulence Parameters

x	z	Mean U	Mean V	Mean W	U RMS	V RMS	W RMS	U Skew	V skew	W Skew
72.5	5.72	0.5414	0.0061	-0.0198	0.0529	0.0428	0.0357	0.1711	-0.0527	0.4764
72.5	5.22	0.5624	0.0012	-0.0263	0.0600	0.0419	0.0340	-0.1721	-0.1270	0.7145
72.5	4.23	0.5519	0.0090	-0.0244	0.0622	0.0438	0.0338	-0.1919	0.1421	0.3094
72.5	3.73	0.5375	0.0141	-0.0203	0.0571	0.0420	0.0341	-0.0201	0.0746	0.3838
72.5	3.23	0.5142	0.0194	-0.0178	0.0588	0.0449	0.0331	-0.2832	0.0707	0.1065
72.5	2.93	0.4232	0.0010	-0.0257	0.0889	0.0447	0.0326	-0.6612	-0.0656	0.2569
69	11.23	0.5979	0.0214	-0.0468	0.0457	0.0322	0.0268	-0.4092	0.0374	0.3909
69	10.23	0.5743	0.0202	-0.0449	0.0594	0.0380	0.0301	-0.4422	-0.1264	0.5058
69	9.23	0.5488	0.0213	-0.0448	0.0563	0.0388	0.0304	-0.1138	0.0095	0.2291
69	8.73	0.5545	0.0203	-0.0528	0.0562	0.0379	0.0320	-0.3873	0.0590	0.4372
69	8.23	0.5642	0.0191	-0.0575	0.0555	0.0367	0.0329	-0.4214	0.1368	0.5783
69	7.73	0.5688	0.0275	-0.0611	0.0585	0.0380	0.0311	-0.5055	0.0732	0.4982
69	7.23	0.5349	0.0114	-0.0475	0.0571	0.0419	0.0387	-0.0893	-0.0938	0.4018
69	6.73	0.5590	0.0269	-0.0552	0.0493	0.0373	0.0296	-0.1362	0.2387	0.1674
69	6.23	0.5302	0.0153	-0.0489	0.0532	0.0405	0.0351	-0.0436	0.0805	0.1754
69	5.73	0.5404	0.0127	-0.0562	0.0527	0.0410	0.0311	0.0335	0.0782	0.1009
69	5.23	0.5451	0.0147	-0.0774	0.0512	0.0368	0.0311	-0.0468	0.1035	0.3908
69	4.73	0.5567	0.0080	-0.0623	0.0564	0.0423	0.0332	-0.1493	0.1334	0.2345
69	4.23	0.5114	0.0055	-0.0517	0.0484	0.0483	0.0350	-0.1213	0.2047	0.2481
69	3.73	0.5009	0.0180	-0.0826	0.0681	0.0520	0.0383	-0.1648	-0.0998	0.5040
69	3.23	0.4728	0.0102	-0.0747	0.0756	0.0635	0.0429	-0.0896	0.0864	0.3491
69	2.73	0.4126	0.0111	-0.0567	0.0803	0.0561	0.0422	-0.7290	-0.0787	0.4827
69	2.23	0.3073	0.0007	-0.0548	0.1098	0.0591	0.0543	-0.1250	0.2093	0.3476
69	1.73	0.1339	-0.0374	-0.0246	0.1124	0.0717	0.0647	0.3413	0.3573	-0.3116
69	1.23	0.0346	-0.0492	0.0018	0.0884	0.0705	0.0602	0.2738	0.1967	-0.4985
66	11.23	0.5860	0.0413	-0.0447	0.0633	0.0384	0.0351	-0.2771	0.1353	0.6626
66	10.23	0.5934	0.0454	-0.0465	0.0571	0.0385	0.0326	-0.2675	-0.0195	0.6854
66	9.23	0.5858	0.0356	-0.0513	0.0602	0.0390	0.0335	-0.3888	0.0415	0.4662
66	8.73	0.5855	0.0411	-0.0549	0.0620	0.0404	0.0330	-0.3578	-0.0469	0.4913
66	8.23	0.5838	0.0377	-0.0565	0.0590	0.0395	0.0315	-0.2904	-0.0288	0.3540
66	7.73	0.5682	0.0344	-0.0602	0.0654	0.0413	0.0350	-0.3216	0.1540	0.5165
66	7.23	0.5495	0.0325	-0.0552	0.0607	0.0417	0.0347	0.0659	0.0446	0.1740
66	6.73	0.5501	0.0398	-0.0566	0.0611	0.0401	0.0331	0.0231	0.1901	0.2417
66	6.23	0.5501	0.0386	-0.0643	0.0587	0.0423	0.0342	-0.0243	-0.0047	0.3401
66	5.73	0.5459	0.0383	-0.0641	0.0564	0.0411	0.0331	-0.0211	0.0367	0.3334
66	5.23	0.5298	0.0380	-0.0665	0.0549	0.0469	0.0377	0.0033	0.1653	0.3539
66	4.73	0.5337	0.0298	-0.0642	0.0613	0.0450	0.0391	-0.5988	0.1484	0.6838
66	4.23	0.5243	0.0293	-0.0750	0.0646	0.0499	0.0368	-0.2519	0.0405	0.5690
66	3.73	0.5171	0.0247	-0.0885	0.0685	0.0503	0.0384	-0.6528	0.4537	0.6435
66	3.23	0.4947	0.0275	-0.0835	0.0856	0.0567	0.0473	-1.1959	-0.0292	0.8033
66	2.73	0.4087	0.0164	-0.0818	0.1030	0.0591	0.0530	-0.6802	0.0170	0.6550
66	2.23	0.3436	0.0101	-0.0806	0.1081	0.0646	0.0601	-0.5408	0.0459	0.5760
66	1.73	0.1770	-0.0190	-0.0565	0.1321	0.0842	0.0753	-0.0384	-0.0407	0.1180
66	1.23	0.1143	-0.0220	-0.0530	0.1238	0.0815	0.0726	-0.0421	0.1646	0.0254
66	0.73	0.0691	-0.0283	-0.0517	0.1143	0.0879	0.0706	0.2292	0.2248	-0.1267
63.5	11.72	0.5995	0.0105	-0.0297	0.0407	0.0305	0.0244	-0.3411	0.1528	0.2070
63.5	10.72	0.5798	0.0092	-0.0297	0.0542	0.0349	0.0291	-0.6614	0.0806	0.5020
63.5	9.72	0.5574	0.0069	-0.0328	0.0588	0.0372	0.0325	-0.4409	-0.1443	0.5163
63.5	9.22	0.5650	0.0045	-0.0314	0.0547	0.0355	0.0296	-0.2789	-0.0276	0.4955
63.5	8.72	0.5718	0.0103	-0.0381	0.0563	0.0348	0.0311	-0.5447	-0.0668	0.6388
63.5	8.22	0.5421	0.0096	-0.0335	0.0592	0.0358	0.0308	-0.1224	-0.0935	0.1625
63.5	7.72	0.5575	0.0103	-0.0373	0.0531	0.0345	0.0273	-0.1587	0.1722	0.1812
63.5	7.22	0.5264	0.0154	-0.0376	0.0569	0.0388	0.0307	-0.1005	0.0701	0.2123
63.5	6.72	0.5659	0.0024	-0.0455	0.0477	0.0336	0.0266	-0.1020	0.0872	0.2842
63.5	6.22	0.5240	0.0112	-0.0478	0.0592	0.0389	0.0339	-0.0321	-0.0788	0.3995
63.5	5.72	0.5436	0.0075	-0.0427	0.0564	0.0366	0.0323	-0.1555	0.1694	0.5562
63.5	5.22	0.5202	-0.0020	-0.0464	0.0577	0.0455	0.0373	-0.3478	0.2066	0.7834
63.5	4.72	0.5529	0.0114	-0.0543	0.0509	0.0407	0.0333	-0.0820	0.2020	0.4945
63.5	4.22	0.5016	0.0124	-0.0529	0.0674	0.0460	0.0390	-0.5892	0.1466	0.7433
63.5	3.92	0.4894	0.0257	-0.0612	0.0710	0.0527	0.0404	-0.8210	0.2571	0.8687
63.5	3.62	0.4949	0.0085	-0.0579	0.0776	0.0530	0.0440	-0.9699	0.1534	0.7382
63.5	3.32	0.4395	0.0194	-0.0642	0.0907	0.0584	0.0498	-1.2331	0.1840	0.9084
63.5	2.72	0.3822	-0.0103	-0.0622	0.1138	0.0649	0.0547	-0.9558	-0.0704	0.8683
63.5	2.22	0.2612	-0.0036	-0.0780	0.1260	0.0773	0.0702	-0.4326	0.3240	0.6553
63.5	1.72	0.1821	-0.0119	-0.0694	0.1156	0.0821	0.0681	-0.2347	0.4159	0.4955
63.5	1.22	0.2493	-0.0086	-0.0777	0.1087	0.0689	0.0550	-0.5597	0.4619	0.5075
60	11.23	0.5760	0.0405	-0.0461	0.0509	0.0338	0.0275	-0.1695	-0.1062	0.2881
60	10.23	0.5691	0.0406	-0.0521	0.0516	0.0347	0.0283	-0.6492	0.1353	0.3735
60	9.23	0.5311	0.0365	-0.0471	0.0626	0.0414	0.0319	-0.1921	-0.0797	0.2958

Table B1: Velocity Moments and Turbulence Parameters

x	z	Mean U	Mean V	Mean W	U RMS	V RMS	W RMS	U Skew	V skew	W Skew
60	8.73	0.5375	0.0335	-0.0496	0.0603	0.0389	0.0314	-0.3385	-0.1488	0.2168
60	8.23	0.5397	0.0344	-0.0541	0.0585	0.0374	0.0305	-0.2729	0.0155	0.4192
60	7.73	0.5183	0.0319	-0.0511	0.0588	0.0380	0.0331	-0.1191	0.2070	0.4331
60	7.23	0.5447	0.0369	-0.0554	0.0544	0.0361	0.0301	-0.3390	0.0597	0.3360
60	6.73	0.5078	0.0328	-0.0531	0.0623	0.0406	0.0358	-0.0793	0.0778	0.4521
60	6.23	0.5000	0.0322	-0.0560	0.0598	0.0396	0.0334	0.1160	0.0079	0.2489
60	5.73	0.5089	0.0281	-0.0566	0.0558	0.0402	0.0340	-0.1567	0.0241	0.4471
60	5.23	0.5025	0.0314	-0.0629	0.0618	0.0402	0.0314	-0.1167	-0.0888	0.3230
60	4.73	0.4652	0.0306	-0.0537	0.0663	0.0451	0.0409	-0.7812	0.0097	0.7703
60	4.23	0.4771	0.0263	-0.0645	0.0730	0.0481	0.0425	-0.7077	0.1155	1.0057
60	3.73	0.4468	0.0245	-0.0641	0.0815	0.0504	0.0431	-0.7207	0.1084	1.0753
60	3.23	0.4182	0.0294	-0.0666	0.0806	0.0550	0.0429	-0.5199	-0.0374	0.6039
60	2.73	0.4120	0.0128	-0.0697	0.0846	0.0535	0.0432	-0.9098	-0.1891	0.9806
60	2.23	0.3135	0.0075	-0.0621	0.1181	0.0709	0.0624	-0.4463	0.0891	0.7249
60	1.73	0.2656	0.0020	-0.0559	0.1185	0.0702	0.0592	-0.3980	-0.1322	0.5871
60	1.23	0.2116	-0.0108	-0.0495	0.1125	0.0812	0.0642	-0.2121	0.1372	0.3253
60	0.93	0.1768	-0.0310	-0.0389	0.1084	0.0802	0.0568	-0.0974	0.1129	0.2359
57.5	11.72	0.5752	0.0104	-0.0264	0.0440	0.0312	0.0254	-0.4793	0.1895	0.0801
57.5	10.72	0.5549	0.0097	-0.0214	0.0587	0.0356	0.0298	-0.4356	0.0701	0.4241
57.5	9.72	0.5255	0.0103	-0.0218	0.0555	0.0379	0.0295	-0.1139	0.0368	0.2063
57.5	9.22	0.5331	0.0123	-0.0271	0.0544	0.0382	0.0284	-0.4234	-0.0388	0.4037
57.5	8.72	0.5415	0.0098	-0.0273	0.0536	0.0343	0.0282	-0.5006	0.1192	0.4839
57.5	8.22	0.5448	0.0117	-0.0309	0.0548	0.0354	0.0290	-0.4818	0.0943	0.5327
57.5	7.72	0.5041	0.0058	-0.0203	0.0609	0.0393	0.0329	-0.2674	0.0287	0.4083
57.5	7.22	0.5287	0.0131	-0.0299	0.0502	0.0347	0.0276	-0.2144	0.0716	0.2743
57.5	6.72	0.5024	0.0076	-0.0266	0.0571	0.0375	0.0307	-0.1440	0.0881	0.2516
57.5	6.22	0.5113	0.0035	-0.0308	0.0553	0.0375	0.0294	-0.1076	-0.0080	0.2622
57.5	5.72	0.5031	0.0074	-0.0289	0.0516	0.0357	0.0286	-0.0398	-0.1837	0.3783
57.5	5.22	0.5144	0.0031	-0.0308	0.0662	0.0429	0.0372	-0.6945	0.0597	1.1360
57.5	4.72	0.4633	0.0001	-0.0227	0.0640	0.0453	0.0367	-1.0448	0.2530	0.8294
57.5	4.22	0.4681	0.0045	-0.0290	0.0684	0.0443	0.0342	-0.7568	-0.0640	0.4934
57.5	3.72	0.4349	0.0046	-0.0267	0.0674	0.0478	0.0363	-0.5838	-0.1447	0.4690
57.5	3.22	0.4369	0.0018	-0.0332	0.0789	0.0560	0.0398	-0.9634	-0.1967	0.8293
57.5	2.72	0.3092	-0.0009	-0.0486	0.1061	0.0686	0.0594	-0.4935	0.0039	0.4986
57.5	2.22	0.3224	-0.0040	-0.0367	0.0976	0.0628	0.0501	-0.3039	0.0022	0.5841
57.5	1.72	0.2325	-0.0222	-0.0315	0.0992	0.0753	0.0578	-0.2560	-0.0202	0.2777
57.5	1.22	0.2675	-0.0143	-0.0175	0.1115	0.0720	0.0580	-0.2815	-0.0150	0.4483
54.5	11.72	0.5891	0.0026	-0.0254	0.0531	0.0344	0.0295	-0.4229	-0.1168	0.3309
54.5	10.72	0.5734	0.0041	-0.0243	0.0552	0.0366	0.0302	-0.2760	0.1648	0.1886
54.5	9.72	0.5602	-0.0020	-0.0223	0.0622	0.0406	0.0312	-0.2835	0.0758	0.3129
54.5	9.22	0.5448	0.0022	-0.0253	0.0591	0.0356	0.0291	-0.4278	-0.1344	0.3665
54.5	8.72	0.5603	0.0007	-0.0240	0.0591	0.0359	0.0301	-0.2711	0.1392	0.3637
54.5	8.22	0.5511	-0.0025	-0.0239	0.0674	0.0377	0.0317	-0.4788	0.0654	0.5245
54.5	7.72	0.5301	-0.0020	-0.0204	0.0621	0.0416	0.0325	-0.0645	0.0023	0.4091
54.5	7.22	0.5262	0.0027	-0.0204	0.0615	0.0396	0.0329	-0.1577	0.0565	0.2558
54.5	6.72	0.5210	0.0000	-0.0241	0.0599	0.0394	0.0309	-0.1462	-0.0771	0.2580
54.5	6.22	0.5180	-0.0006	-0.0235	0.0598	0.0399	0.0319	-0.2383	0.0432	0.3497
54.5	5.72	0.5048	-0.0019	-0.0219	0.0653	0.0449	0.0342	-0.3533	0.0780	0.5588
54.5	5.22	0.4882	-0.0028	-0.0185	0.0775	0.0475	0.0405	-0.9856	-0.2764	0.9332
54.5	4.72	0.4823	-0.0031	-0.0237	0.0723	0.0483	0.0372	-0.4947	0.0801	0.6051
54.5	4.22	0.4973	-0.0076	-0.0262	0.0695	0.0472	0.0333	-0.7822	-0.1453	0.5725
54.5	3.72	0.4602	-0.0048	-0.0234	0.0799	0.0509	0.0380	-0.9183	0.1259	0.6377
54.5	3.22	0.4255	-0.0024	-0.0220	0.0928	0.0603	0.0431	-0.7327	0.1062	0.8187
54.5	2.72	0.1723	0.0023	-0.0033	0.1936	0.1147	0.0275	-0.3940	0.3530	0.4873
54.5	2.22	0.1115	0.0059	0.0035	0.1911	0.1235	0.0285	-0.1650	0.1153	0.3792
51	11.23	0.5416	0.0195	-0.0339	0.0496	0.0345	0.0282	-0.4632	0.0815	0.4211
51	10.23	0.5583	0.0189	-0.0393	0.0526	0.0362	0.0283	-0.4999	0.1352	0.4329
51	9.23	0.5317	0.0193	-0.0350	0.0562	0.0375	0.0301	-0.0883	-0.0735	0.2947
51	8.73	0.5482	0.0165	-0.0418	0.0543	0.0357	0.0283	-0.5382	-0.0886	0.5060
51	8.23	0.5096	0.0188	-0.0297	0.0591	0.0393	0.0338	-0.1811	0.0036	0.7793
51	7.73	0.5037	0.0112	-0.0303	0.0557	0.0413	0.0322	-0.2041	-0.2278	0.3242
51	7.23	0.4762	0.0115	-0.0236	0.0619	0.0460	0.0376	-0.3202	0.2181	0.5542
51	6.73	0.5132	0.0116	-0.0360	0.0572	0.0401	0.0348	-0.3422	-0.1945	0.5598
51	6.23	0.5033	0.0155	-0.0316	0.0574	0.0434	0.0319	-0.2833	0.0294	0.4316
51	5.73	0.4980	0.0182	-0.0327	0.0792	0.0442	0.0388	-0.9927	0.2767	1.0664
51	5.23	0.4694	0.0204	-0.0277	0.0769	0.0448	0.0400	-0.8859	-0.0680	0.9496
51	4.73	0.4642	0.0116	-0.0303	0.0781	0.0491	0.0394	-0.7984	-0.1765	0.9022
51	4.23	0.4405	0.0084	-0.0297	0.0830	0.0556	0.0443	-0.6183	0.3477	0.8665
51	3.73	0.3745	0.0034	-0.0191	0.0936	0.0628	0.0534	-0.4757	0.0515	0.7945

Table B1: Velocity Moments and Turbulence Parameters

x	z	Mean U	Mean V	Mean W	U RMS	V RMS	W RMS	U Skew	V skew	W Skew
51	3.23	0.4516	0.0097	-0.0284	0.0901	0.0579	0.0368	-0.5624	0.0195	0.7038
51	2.73	0.3824	-0.0011	-0.0198	0.0977	0.0579	0.0530	-0.5003	-0.0321	0.7874
51	2.23	0.3640	-0.0048	-0.0189	0.0844	0.0563	0.0434	-0.3608	0.0518	0.4719
51	1.93	0.3650	-0.0126	-0.0140	0.0819	0.0683	0.0447	-0.2440	0.0138	0.2870
51	1.63	0.3518	-0.0025	-0.0119	0.0831	0.0639	0.0416	-0.1374	0.0610	0.4796
48.5	11.72	0.5703	0.0053	-0.0195	0.0476	0.0616	0.0491	-0.2047	-0.0421	0.5700
48.5	10.72	0.5717	0.0035	-0.0122	0.0481	0.0651	0.0465	-0.2604	0.1318	0.4972
48.5	9.72	0.5313	0.0016	-0.0053	0.0607	0.0771	0.0447	-0.1932	-0.0287	0.0515
48.5	9.22	0.5364	0.0020	-0.0186	0.0592	0.0339	0.0253	-0.4710	0.1425	0.0513
48.5	8.72	0.5417	0.0015	-0.0208	0.0589	0.0338	0.0274	-0.2846	0.1830	0.1430
48.5	8.22	0.5228	0.0001	-0.0106	0.0598	0.0405	0.0311	-0.1994	-0.0060	0.3340
48.5	7.72	0.5437	0.0051	-0.0119	0.0555	0.0361	0.0301	-0.3671	-0.1062	0.2160
48.5	7.22	0.5143	0.0045	-0.0133	0.0645	0.0365	0.0294	-0.3061	0.0572	0.3952
48.5	6.72	0.5024	0.0024	-0.0110	0.0608	0.0392	0.0294	0.0651	0.2617	0.3513
48.5	6.22	0.5091	0.0012	-0.0116	0.0614	0.0373	0.0297	-0.4017	-0.0572	0.6724
48.5	5.72	0.5113	0.0038	-0.0115	0.0613	0.0419	0.0328	-0.2148	0.1506	0.3781
48.5	5.22	0.4609	0.0039	-0.0085	0.0755	0.0412	0.0313	-0.7847	0.1597	0.3700
48.5	4.72	0.4749	-0.0019	-0.0097	0.0875	0.0416	0.0318	-1.0569	0.1976	0.5654
48.5	4.22	0.4550	-0.0016	-0.0119	0.0778	0.0398	0.0294	-0.4488	0.0203	0.3795
48.5	3.72	0.4237	0.0045	-0.0013	0.0802	0.0473	0.0384	-0.4551	0.0944	0.5860
48.5	2.73	0.4114	0.0067	-0.0039	0.0878	0.0494	0.0391	-0.4860	-0.2341	1.0181
48.5	2.23	0.4105	-0.0018	-0.0082	0.0849	0.0481	0.0353	-0.2390	0.1267	0.6887
48.5	1.73	0.3675	-0.0084	-0.0021	0.0833	0.0521	0.0388	-0.1732	-0.1723	0.5950
45	11.23	0.5157	0.0177	-0.0236	0.0538	0.0371	0.0302	-0.1713	-0.0856	0.2568
45	10.23	0.5417	0.0166	-0.0301	0.0526	0.0345	0.0289	-0.2299	-0.0076	0.3376
45	9.23	0.5304	0.0155	-0.0284	0.0542	0.0352	0.0281	-0.0878	-0.0568	0.3032
45	8.73	0.5247	0.0141	-0.0250	0.0560	0.0375	0.0303	-0.2856	-0.0348	0.5933
45	8.23	0.5218	0.0152	-0.0292	0.0542	0.0357	0.0302	-0.1772	-0.0845	0.3991
45	7.73	0.5028	0.0157	-0.0213	0.0588	0.0408	0.0341	-0.3305	-0.0890	0.6699
45	7.23	0.4855	0.0186	-0.0177	0.0658	0.0413	0.0339	-0.4898	0.0741	0.4391
45	6.73	0.4984	0.0135	-0.0203	0.0698	0.0402	0.0362	-0.9135	-0.2414	0.7637
45	6.23	0.5116	0.0139	-0.0217	0.0601	0.0404	0.0311	-0.3940	0.0700	0.3062
45	5.73	0.4736	0.0157	-0.0190	0.0704	0.0452	0.0354	-0.5410	0.0848	0.4599
45	5.23	0.4659	0.0083	-0.0181	0.0703	0.0481	0.0360	-0.6629	0.0996	0.6367
45	4.73	0.4584	0.0106	-0.0232	0.0689	0.0471	0.0327	-0.5513	0.0583	0.5831
45	4.23	0.4400	0.0077	-0.0165	0.0861	0.0533	0.0401	-0.5781	-0.1170	0.6773
45	3.73	0.4552	0.0040	-0.0138	0.0612	0.0458	0.0314	-0.2528	0.0455	0.4268
45	3.23	0.4075	-0.0011	-0.0171	0.0871	0.0560	0.0438	-0.4565	-0.1111	0.8079
45	2.73	0.4194	0.0057	-0.0130	0.0745	0.0521	0.0374	-0.3711	0.0134	0.5390
45	2.23	0.3841	-0.0005	-0.0048	0.0701	0.0568	0.0377	-0.1283	-0.0243	0.2186
42	11.23	0.5578	0.0395	-0.0290	0.0552	0.0369	0.0292	0.2321	-0.1327	0.3467
42	10.23	0.5838	0.0412	-0.0344	0.0505	0.0322	0.0279	-0.2307	0.0534	0.4653
42	9.23	0.5309	0.0356	-0.0228	0.0593	0.0404	0.0329	-0.2036	0.0586	0.4183
42	8.73	0.5306	0.0345	-0.0250	0.0599	0.0414	0.0359	-0.3193	-0.2268	0.4850
42	7.73	0.5371	0.0397	-0.0243	0.0540	0.0393	0.0300	-0.2515	-0.2021	0.4319
42	7.23	0.5221	0.0303	-0.0233	0.0653	0.0439	0.0340	-0.3278	-0.1086	0.4948
42	6.73	0.4926	0.0317	-0.0159	0.0771	0.0473	0.0446	-1.0544	0.0898	1.1404
42	6.23	0.5132	0.0255	-0.0260	0.0704	0.0463	0.0354	-0.8819	-0.0837	0.8638
42	5.73	0.4893	0.0318	-0.0174	0.0695	0.0499	0.0366	-0.5195	0.0748	0.5693
42	5.23	0.4760	0.0292	-0.0156	0.0756	0.0475	0.0394	-0.3904	-0.0539	0.7742
42	4.23	0.4948	0.0218	-0.0209	0.0695	0.0497	0.0314	-0.2762	-0.0152	0.2533
42	2.73	0.4081	0.0102	-0.0031	0.0700	0.0575	0.0383	-0.1451	0.0893	0.2295
42	2.43	0.4105	0.0079	-0.0056	0.0732	0.0602	0.0365	-0.0667	0.0613	0.0955
39.5	11.72	0.5683	0.0133	-0.0098	0.0452	0.0328	0.0271	-0.2744	0.1067	0.1916
39.5	10.72	0.5837	0.0116	-0.0126	0.0520	0.0358	0.0280	-0.4617	0.0845	0.3520
39.5	9.72	0.5523	0.0129	-0.0063	0.0540	0.0371	0.0288	-0.1183	0.1072	0.3260
39.5	9.22	0.5728	0.0103	-0.0132	0.0528	0.0361	0.0281	-0.5323	-0.1121	0.4108
39.5	8.72	0.5286	0.0146	-0.0010	0.0621	0.0396	0.0332	-0.4374	0.0962	0.5753
39.5	8.22	0.5276	0.0067	-0.0013	0.0574	0.0420	0.0328	-0.2358	-0.3088	0.3589
39.5	7.72	0.5009	0.0087	0.0034	0.0657	0.0463	0.0355	-0.5909	0.3208	0.6564
39.5	7.22	0.5298	0.0078	-0.0045	0.0635	0.0437	0.0362	-0.7422	-0.2132	0.7613
39.5	6.72	0.5332	0.0110	-0.0013	0.0575	0.0408	0.0302	-0.4590	0.0328	0.5801
39.5	6.22	0.5280	0.0125	-0.0017	0.0766	0.0455	0.0353	-0.6919	0.1799	1.1663
39.5	5.72	0.4939	0.0147	0.0060	0.0735	0.0467	0.0391	-0.4266	-0.0646	0.7556
39.5	5.22	0.4955	0.0101	0.0035	0.0756	0.0476	0.0370	-0.5903	-0.0232	0.9445
39.5	4.72	0.4681	0.0068	0.0020	0.0717	0.0479	0.0364	-0.5260	0.0537	0.7692
39.5	4.22	0.4330	0.0066	0.0073	0.0757	0.0546	0.0416	-0.2233	-0.0402	0.6186
39.5	3.72	0.4302	0.0156	-0.0031	0.0662	0.0512	0.0367	-0.2195	-0.0134	0.2654
39.5	3.22	0.4354	-0.0051	-0.0018	0.0637	0.0562	0.0329	-0.0330	-0.2829	0.2166

Table B1: Velocity Moments and Turbulence Parameters

x	z	Mean U	Mean V	Mean W	U RMS	V RMS	W RMS	U Skew	V skew	W Skew
39.5	2.72	0.4477	-0.0036	0.0096	0.0636	0.0484	0.0318	-0.1777	0.0240	0.3448
36	11.23	0.5789	0.0373	-0.0280	0.0500	0.0360	0.0286	-0.4777	-0.0768	0.4018
36	10.23	0.5618	0.0353	-0.0247	0.0535	0.0377	0.0297	-0.4192	-0.0207	0.4821
36	9.23	0.5696	0.0378	-0.0279	0.0513	0.0376	0.0298	-0.3117	-0.1266	0.3519
36	8.73	0.5305	0.0315	-0.0177	0.0642	0.0415	0.0341	-0.3872	-0.0605	0.3808
36	8.23	0.5360	0.0310	-0.0209	0.0604	0.0408	0.0317	-0.5449	-0.0059	0.4632
36	7.73	0.5471	0.0350	-0.0221	0.0574	0.0401	0.0318	-0.5187	0.0779	0.4657
36	7.23	0.5332	0.0289	-0.0195	0.0674	0.0418	0.0355	-0.6987	0.0919	0.6788
36	6.73	0.5170	0.0332	-0.0161	0.0614	0.0440	0.0338	-0.3069	0.0636	0.2590
36	6.23	0.5029	0.0291	-0.0161	0.0740	0.0462	0.0385	-0.4072	-0.1736	0.6554
36	5.73	0.5361	0.0276	-0.0184	0.0671	0.0425	0.0312	-0.5923	-0.0156	0.7430
36	5.23	0.4585	0.0252	-0.0059	0.0734	0.0526	0.0410	-0.2248	0.0654	0.5547
36	4.73	0.4774	0.0325	-0.0141	0.0708	0.0512	0.0366	-0.1627	-0.0818	0.3849
36	4.23	0.4841	0.0259	-0.0073	0.0631	0.0477	0.0342	-0.1483	-0.0041	0.5227
36	3.73	0.4411	0.0129	-0.0019	0.0652	0.0570	0.0388	-0.1596	-0.0458	0.2582
36	3.23	0.4659	0.0170	-0.0009	0.0653	0.0506	0.0332	-0.1165	-0.0495	0.2847
36	2.73	0.4350	0.0162	0.0016	0.0634	0.0620	0.0320	-0.0800	-0.1485	0.0995
33.5	11.72	0.5427	0.0116	-0.0041	0.0519	0.0354	0.0285	-0.1323	-0.0423	0.4127
33.5	10.72	0.5648	0.0114	-0.0075	0.0509	0.0321	0.0275	-0.3377	0.0616	0.3346
33.5	9.72	0.5507	0.0094	-0.0042	0.0535	0.0350	0.0278	-0.3090	-0.0965	0.3268
33.5	9.22	0.5548	0.0107	-0.0027	0.0532	0.0362	0.0291	-0.3919	0.0909	0.4618
33.5	8.72	0.5520	0.0102	-0.0055	0.0507	0.0362	0.0271	-0.1445	-0.0719	0.3009
33.5	8.22	0.5232	0.0121	0.0022	0.0608	0.0395	0.0336	-0.4988	0.0439	0.8037
33.5	7.72	0.5135	0.0136	0.0045	0.0637	0.0400	0.0326	-0.3797	-0.0624	0.8033
33.5	7.22	0.5195	0.0107	0.0034	0.0702	0.0394	0.0356	-0.9014	-0.1713	0.8694
33.5	6.72	0.5427	0.0121	0.0009	0.0582	0.0381	0.0278	-0.4207	0.1081	0.4074
33.5	6.22	0.5072	0.0112	0.0058	0.0626	0.0416	0.0320	-0.2413	0.0281	0.2777
33.5	5.72	0.5072	0.0097	0.0059	0.0628	0.0442	0.0341	-0.2982	0.0158	0.6914
33.5	5.22	0.4863	0.0111	0.0014	0.0650	0.0433	0.0304	-0.2766	-0.0058	0.6173
33.5	4.72	0.4806	0.0102	0.0056	0.0694	0.0465	0.0331	-0.2946	0.0616	0.5429
33.5	4.22	0.4613	-0.0124	-0.0014	0.0632	0.0498	0.0355	-0.0474	0.0271	0.2370
33.5	3.72	0.4359	0.0088	0.0043	0.0632	0.0600	0.0346	0.1137	-0.3427	0.0854
33.5	3.22	0.4824	0.0049	0.0123	0.0599	0.0467	0.0318	-0.1748	-0.1006	0.4700
30.5	11.72	0.5820	0.0042	0.0011	0.0478	0.0633	0.0342	-0.1272	0.0979	0.1403
30.5	10.72	0.6090	0.0037	0.0081	0.0439	0.0625	0.0222	-0.2006	0.0156	-0.0753
30.5	9.72	0.5636	0.0039	-0.0087	0.0568	0.0333	0.0292	-0.1706	-0.0003	0.0530
30.5	9.22	0.5591	0.0011	-0.0158	0.0581	0.0326	0.0267	-0.3409	-0.0956	0.4115
30.5	8.72	0.5751	0.0033	-0.0030	0.0603	0.0383	0.0314	-0.6702	-0.0033	0.4139
30.5	8.22	0.5660	0.0039	-0.0039	0.0538	0.0409	0.0335	-0.3716	-0.0801	0.4389
30.5	7.72	0.5529	-0.0010	-0.0044	0.0660	0.0404	0.0317	-0.4070	0.0003	0.5042
30.5	7.22	0.5298	0.0027	-0.0018	0.0655	0.0410	0.0305	-0.5420	-0.1759	0.4405
30.5	6.72	0.5420	-0.0016	-0.0019	0.0674	0.0407	0.0332	-0.4845	-0.1010	0.4689
30.5	6.22	0.5281	0.0027	0.0012	0.0626	0.0429	0.0342	-0.3950	-0.2521	0.3800
30.5	5.72	0.5173	-0.0013	-0.0035	0.0668	0.0426	0.0334	-0.1633	-0.0888	0.9184
30.5	5.22	0.5028	0.0012	0.0020	0.0639	0.0470	0.0326	-0.0984	0.0487	0.3243
30.5	4.72	0.5260	0.0001	0.0054	0.0625	0.0435	0.0338	-0.1755	-0.0498	0.6240
30.5	4.22	0.4865	-0.0037	0.0009	0.0791	0.0460	0.0323	0.0704	0.0500	0.4105
30.5	3.23	0.4663	0.0016	0.0013	0.0646	0.0442	0.0285	-0.0418	-0.0711	0.4765
30.5	2.73	0.4803	0.0041	0.0063	0.0577	0.0679	0.0328	-0.1765	0.0013	0.3392
27	11.23	0.5914	0.0208	-0.0332	0.0465	0.0344	0.0264	-0.5563	0.1614	0.4008
27	10.23	0.5603	0.0183	-0.0234	0.0555	0.0383	0.0308	-0.5308	0.0469	0.5742
27	9.23	0.5456	0.0171	-0.0198	0.0586	0.0399	0.0323	-0.4560	0.0193	0.6809
27	8.73	0.5534	0.0163	-0.0211	0.0539	0.0397	0.0318	-0.4784	-0.0586	0.5551
27	8.23	0.5801	0.0189	-0.0247	0.0494	0.0347	0.0267	-0.3573	0.0827	0.3967
27	7.73	0.5195	0.0135	-0.0151	0.0702	0.0442	0.0367	-0.2599	0.0198	0.7025
27	7.23	0.5216	0.0175	-0.0104	0.0667	0.0431	0.0356	-0.4100	-0.2081	0.4861
27	6.73	0.5370	0.0145	-0.0142	0.0547	0.0426	0.0301	-0.2335	0.1506	0.3056
27	6.23	0.5143	0.0090	-0.0124	0.0665	0.0441	0.0351	-0.2549	0.0428	0.2578
27	5.73	0.4791	0.0134	-0.0054	0.0613	0.0498	0.0353	-0.0428	-0.0569	0.3286
27	5.23	0.5002	0.0107	-0.0087	0.0676	0.0547	0.0340	-0.1933	0.0081	0.4119
27	4.73	0.5159	-0.0035	-0.0095	0.0578	0.0435	0.0326	-0.1283	0.0856	0.6126
27	4.23	0.5183	0.0128	-0.0017	0.0600	0.0410	0.0284	-0.3171	-0.1702	0.2196
27	3.73	0.4752	0.0046	0.0046	0.0539	0.0515	0.0298	-0.0451	-0.2309	0.1089
27	3.43	0.4789	0.0049	0.0041	0.0553	0.0521	0.0249	0.0174	0.2246	0.1787
24.5	11.72	0.6102	-0.0002	0.0038	0.0494	0.0546	0.0347	-0.6109	0.0200	0.0950
24.5	10.72	0.5962	-0.0003	0.0028	0.0516	0.0584	0.0292	-0.5095	-0.1499	-0.0047
24.5	9.72	0.6085	0.0025	-0.0143	0.0483	0.0348	0.0285	-0.3373	-0.0164	0.3088
24.5	9.22	0.5711	-0.0007	-0.0095	0.0603	0.0358	0.0298	-0.3385	-0.0351	0.6432
24.5	8.72	0.5739	-0.0017	-0.0131	0.0573	0.0369	0.0280	-0.4203	-0.1593	0.3948

Table B1: Velocity Moments and Turbulence Parameters

x	z	Mean U	Mean V	Mean W	U RMS	V RMS	W RMS	U Skew	V skew	W Skew
24.5	8.22	0.5846	-0.0005	-0.0027	0.0536	0.0405	0.0332	-0.4324	-0.1541	0.6124
24.5	7.72	0.5770	-0.0026	-0.0040	0.0627	0.0385	0.0315	-0.6110	-0.0004	0.4357
24.5	7.22	0.5560	-0.0003	-0.0046	0.0553	0.0381	0.0298	-0.2437	-0.0924	0.3714
24.5	6.72	0.5457	-0.0003	-0.0041	0.0624	0.0397	0.0322	-0.3023	-0.0651	0.5248
24.5	6.22	0.5800	-0.0030	0.0008	0.0620	0.0409	0.0321	-0.5442	0.0626	0.1662
24.5	5.72	0.5026	-0.0027	0.0011	0.0605	0.0414	0.0340	-0.0861	0.0414	0.7053
24.5	5.22	0.5111	0.0086	-0.0009	0.0630	0.0394	0.0295	-0.0341	-0.1252	0.4635
24.5	4.23	0.5095	0.0060	0.0061	0.0623	0.0467	0.0349	-0.0430	-0.0118	0.2993
24.5	3.73	0.5045	0.0052	0.0044	0.0591	0.0466	0.0323	-0.0523	-0.0693	0.4046
24.5	3.72	0.5279	-0.0122	0.0173	0.0594	0.0482	0.0278	-0.0226	-0.1977	0.2489
21	11.23	0.5728	0.0231	-0.0242	0.0513	0.0394	0.0328	-0.1944	-0.1132	0.4307
21	10.23	0.6017	0.0211	-0.0337	0.0485	0.0367	0.0271	-0.5233	-0.0853	0.3347
21	9.23	0.5870	0.0192	-0.0283	0.0519	0.0369	0.0294	-0.2450	-0.1662	0.3863
21	8.73	0.5579	0.0177	-0.0221	0.0633	0.0394	0.0349	-0.4498	0.0099	0.4252
21	8.23	0.5755	0.0176	-0.0243	0.0568	0.0381	0.0287	-0.2590	0.0904	0.2103
21	7.73	0.5874	0.0162	-0.0276	0.0553	0.0389	0.0301	-0.6100	-0.0071	0.6702
21	7.23	0.5516	0.0147	-0.0168	0.0577	0.0404	0.0329	-0.4408	-0.1189	0.3912
21	6.73	0.5434	0.0166	-0.0136	0.0639	0.0442	0.0380	-0.2182	0.0334	0.5350
21	6.23	0.5396	0.0120	-0.0143	0.0614	0.0454	0.0349	-0.1202	-0.1144	0.5393
21	5.73	0.5312	0.0168	-0.0143	0.0619	0.0472	0.0306	-0.0846	0.0271	0.3456
21	5.23	0.5196	0.0009	-0.0058	0.0528	0.0447	0.0324	0.0649	-0.0619	0.3523
21	4.73	0.5492	0.0134	-0.0052	0.0596	0.0407	0.0273	-0.1816	-0.0131	0.2349
21	4.23	0.5378	0.0064	0.0017	0.0562	0.0451	0.0259	0.0752	0.0133	0.4068
21	3.73	0.5143	-0.0114	0.0049	0.0522	0.0515	0.0225	0.1291	0.1733	-0.1225
21	3.43	0.4960	0.0080	0.0098	0.0485	0.0516	0.0162	0.1083	-0.1007	0.2076
21	3.13	0.4022	0.0099	0.0087	0.0429	0.0390	0.0110	0.0141	-0.0625	-0.1411
18	11.23	0.6189	0.0427	-0.0359	0.0474	0.0351	0.0274	-0.3735	0.0185	0.4417
18	10.23	0.6080	0.0435	-0.0317	0.0544	0.0372	0.0313	-0.4402	0.0629	0.3202
18	9.23	0.5985	0.0399	-0.0315	0.0585	0.0392	0.0331	-0.5896	-0.0949	0.4718
18	8.73	0.5816	0.0413	-0.0279	0.0595	0.0413	0.0352	-0.2854	-0.1521	0.5880
18	8.23	0.5776	0.0391	-0.0280	0.0588	0.0389	0.0328	-0.1850	-0.2344	0.2990
18	7.73	0.5863	0.0407	-0.0282	0.0566	0.0403	0.0331	-0.2801	-0.0055	0.4555
18	7.23	0.5696	0.0373	-0.0243	0.0606	0.0427	0.0323	-0.1728	0.0092	0.2549
18	6.73	0.5766	0.0407	-0.0286	0.0586	0.0424	0.0318	-0.2514	-0.0187	0.4658
18	6.23	0.5504	0.0419	-0.0203	0.0588	0.0493	0.0340	-0.1173	-0.1262	0.3581
18	5.73	0.5597	0.0365	-0.0165	0.0562	0.0444	0.0325	-0.2116	-0.0852	0.5292
18	5.23	0.5688	0.0342	-0.0142	0.0613	0.0442	0.0307	-0.1253	0.0818	0.2404
18	4.73	0.5408	0.0255	-0.0014	0.0582	0.0505	0.0316	0.1762	0.0700	0.1977
18	4.23	0.5510	0.0301	-0.0030	0.0543	0.0514	0.0248	0.0340	0.0735	-0.0540
18	3.73	0.5579	0.0178	0.0030	0.0534	0.0525	0.0189	0.0098	0.1248	0.1355
18	3.23	0.3559	0.0227	0.0056	0.0408	0.0400	0.0092	0.0963	0.0980	-0.1586
15.5	11.72	0.6243	0.0125	-0.0230	0.0413	0.0327	0.0262	-0.4940	0.1361	0.3700
15.5	10.72	0.5941	0.0130	-0.0142	0.0537	0.0356	0.0308	-0.4933	0.0269	0.5720
15.5	9.72	0.5897	0.0116	-0.0153	0.0531	0.0376	0.0300	-0.4135	0.0519	0.3693
15.5	9.22	0.5929	0.0081	-0.0168	0.0495	0.0377	0.0299	-0.2402	0.0813	0.2953
15.5	8.72	0.6138	0.0116	-0.0189	0.0458	0.0320	0.0254	-0.2622	0.0715	0.1956
15.5	8.22	0.5651	0.0115	-0.0128	0.0630	0.0406	0.0332	-0.2351	0.0351	0.4684
15.5	7.72	0.5678	0.0083	-0.0084	0.0550	0.0390	0.0323	-0.2301	-0.0890	0.3908
15.5	7.22	0.5876	0.0102	-0.0144	0.0507	0.0373	0.0280	-0.1559	0.0620	0.2055
15.5	6.72	0.5516	0.0081	-0.0176	0.0562	0.0404	0.0313	-0.2000	-0.0286	0.2854
15.5	6.22	0.5264	0.0099	-0.0047	0.0553	0.0455	0.0322	-0.0009	0.0269	0.1366
15.5	5.72	0.5468	0.0080	-0.0240	0.0501	0.0429	0.0306	-0.0745	-0.0577	0.1021
15.5	5.22	0.5460	0.0095	-0.0250	0.0517	0.0461	0.0296	0.0111	0.0613	0.3846
15.5	4.72	0.5864	0.0102	-0.0054	0.0542	0.0386	0.0272	-0.3120	-0.1930	0.0276
15.5	4.22	0.5606	-0.0018	-0.0049	0.0491	0.0456	0.0254	0.0402	-0.1347	0.0173
15.5	3.92	0.5647	0.0017	-0.0029	0.0505	0.0467	0.0215	-0.0474	0.1831	0.0937
12	11.23	0.5926	0.0430	-0.0387	0.0507	0.0359	0.0284	-0.3962	0.0890	0.6228
12	10.23	0.5744	0.0411	-0.0353	0.0583	0.0380	0.0321	-0.4069	0.0352	0.4743
12	9.23	0.5982	0.0459	-0.0465	0.0506	0.0364	0.0274	-0.4195	-0.1061	0.2547
12	8.73	0.5521	0.0396	-0.0358	0.0591	0.0390	0.0345	-0.1953	0.1077	0.4257
12	8.23	0.5685	0.0409	-0.0441	0.0541	0.0377	0.0305	-0.2581	-0.0093	0.4274
12	7.73	0.5761	0.0404	-0.0425	0.0503	0.0366	0.0305	-0.2063	-0.0422	0.4039
12	7.23	0.5673	0.0435	-0.0434	0.0557	0.0374	0.0325	-0.2576	0.0214	0.4732
12	6.73	0.5489	0.0408	-0.0411	0.0561	0.0419	0.0337	0.0128	-0.0305	0.2999
12	6.23	0.5626	0.0411	-0.0451	0.0557	0.0386	0.0313	-0.1943	-0.1101	0.2406
12	5.73	0.5406	0.0389	-0.0509	0.0577	0.0467	0.0297	-0.0021	-0.1099	0.2432
12	5.23	0.5264	0.0358	-0.0418	0.0606	0.0534	0.0326	0.1541	0.0204	0.3579
12	4.73	0.5445	0.0404	-0.0486	0.0529	0.0426	0.0297	-0.0601	-0.2110	0.0399
12	4.23	0.5232	0.0336	-0.0390	0.0509	0.0459	0.0293	0.0869	-0.1017	0.0811

Table B1: Velocity Moments and Turbulence Parameters

x	z	Mean U	Mean V	Mean W	U RMS	V RMS	W RMS	U Skew	V skew	W Skew
12	3.73	0.5204	0.0242	-0.0428	0.0478	0.0495	0.0277	-0.0112	0.1286	-0.0770
12	3.23	0.4768	0.0386	-0.0451	0.0522	0.0492	0.0254	-0.1008	0.0388	0.0462
12	2.73	0.2121	0.0238	-0.0147	0.0859	0.0549	0.0305	0.0195	-0.0213	-0.2199
12	2.43	0.0344	0.0017	0.0105	0.0735	0.0626	0.0335	0.3300	0.6897	-0.5274
12	2.13	-0.0162	0.0030	0.0133	0.0390	0.0469	0.0187	0.1446	0.4029	-0.1035
9.5	11.72	0.5900	0.0169	-0.0175	0.0478	0.0364	0.0296	-0.2691	-0.1193	0.3340
9.5	10.72	0.6089	0.0108	-0.0305	0.0472	0.0340	0.0265	-0.3135	-0.0082	0.3342
9.5	9.72	0.6015	0.0107	-0.0271	0.0506	0.0355	0.0280	-0.2420	-0.1371	0.4114
9.5	9.22	0.5783	0.0127	-0.0269	0.0578	0.0349	0.0307	-0.3230	0.1066	0.2948
9.5	8.72	0.5933	0.0075	-0.0284	0.0527	0.0344	0.0268	-0.3546	-0.0346	0.1911
9.5	8.22	0.6094	0.0131	-0.0372	0.0505	0.0342	0.0277	-0.4427	0.0377	0.4814
9.5	7.72	0.5707	0.0028	-0.0237	0.0549	0.0378	0.0302	-0.2872	-0.0970	0.2672
9.5	7.22	0.5678	0.0104	-0.0321	0.0587	0.0404	0.0335	-0.2264	-0.1215	0.2910
9.5	6.72	0.5785	-0.0023	-0.0395	0.0582	0.0372	0.0316	-0.0805	-0.0621	0.4087
9.5	6.22	0.5721	0.0134	-0.0346	0.0537	0.0378	0.0317	-0.1928	-0.0550	0.2413
9.5	5.72	0.5703	-0.0068	-0.0359	0.0474	0.0381	0.0331	-0.0494	-0.0298	0.2607
9.5	5.22	0.5879	0.0088	-0.0445	0.0527	0.0360	0.0294	-0.0106	-0.2877	0.2932
9.5	4.72	0.5801	0.0068	-0.0276	0.0504	0.0372	0.0304	0.0267	-0.0844	0.2754
9.5	4.22	0.5676	-0.0171	-0.0428	0.0500	0.0446	0.0324	0.1836	0.0024	-0.0645
9.5	3.92	0.5239	0.0069	-0.0262	0.0536	0.0473	0.0290	-0.0685	-0.0102	0.2182
9.5	3.62	0.5340	0.0043	-0.0339	0.0611	0.0495	0.0328	-0.2313	0.0018	0.2744
9.5	3.22	0.4321	0.0147	-0.0834	0.0881	0.0556	0.0499	-0.9254	0.0634	0.8175
9.5	2.72	0.3448	0.0056	-0.0818	0.0978	0.0634	0.0565	-0.6133	0.1402	0.4132
9.5	2.22	0.2913	0.0022	-0.0951	0.1109	0.0671	0.0605	-0.5655	0.1493	0.6109
9.5	1.72	0.0692	0.0168	0.0044	0.0984	0.0699	0.0576	0.2008	0.0107	-0.4158
6.5	11.72	0.6201	0.0032	-0.0377	0.0461	0.0939	0.0805	-0.4642	0.2478	-0.1211
6.5	10.72	0.6147	0.0064	-0.0455	0.0520	0.0995	0.0733	-0.4267	0.1993	-0.2367
6.5	9.72	0.6063	0.0046	-0.0273	0.0551	0.0335	0.0271	-0.3603	0.1248	0.2282
6.5	9.22	0.5827	0.0004	-0.0298	0.0563	0.0335	0.0286	-0.1542	-0.0360	0.3169
6.5	8.72	0.5778	-0.0021	-0.0324	0.0600	0.0365	0.0290	-0.2071	-0.1120	0.3689
6.5	8.22	0.5894	0.0034	-0.0313	0.0580	0.0372	0.0317	-0.2799	-0.0231	0.4688
6.5	7.72	0.5793	0.0017	-0.0323	0.0550	0.0372	0.0310	-0.1078	-0.1665	0.2653
6.5	7.22	0.5913	0.0006	-0.0382	0.0559	0.0377	0.0310	-0.1866	-0.0805	0.3940
6.5	6.72	0.5676	-0.0027	-0.0358	0.0567	0.0369	0.0298	-0.0261	0.0744	0.2440
6.5	6.22	0.5793	0.0029	-0.0419	0.0545	0.0359	0.0297	-0.2210	-0.0992	0.3478
6.5	5.72	0.5824	0.0031	-0.0397	0.0593	0.0396	0.0320	-0.1722	-0.1313	0.3314
6.5	5.22	0.5537	-0.0088	-0.0404	0.0562	0.0370	0.0304	0.2063	0.0472	0.2877
6.5	4.72	0.5669	-0.0002	-0.0475	0.0568	0.0387	0.0327	-0.2365	0.0991	0.0746
6.5	4.22	0.5781	-0.0106	-0.0434	0.0571	0.0430	0.0335	-0.2996	-0.0219	0.3919
6.5	3.72	0.5390	-0.0007	-0.0489	0.0680	0.0429	0.0357	-0.6044	0.0391	0.3016
6.5	3.22	0.4733	-0.0030	-0.0542	0.0981	0.0443	0.0365	-0.7687	0.0614	0.4369
6.5	2.72	0.3905	0.0085	-0.0518	0.0998	0.0533	0.0400	-0.4948	-0.0915	0.4399
6.5	2.22	0.2823	0.0186	-0.0472	0.1191	0.0619	0.0494	-0.3406	-0.0013	0.5755
6.5	1.23	0.1181	-0.0188	-0.0551	0.1320	0.0640	0.0548	0.1033	-0.0091	0.4376
6.5	0.73	0.0743	-0.0214	-0.0439	0.1145	0.0729	0.0628	0.2252	-0.0505	0.2200
6.5	0.72	0.0189	0.0058	-0.0279	0.1068	0.0795	0.0680	0.0840	-0.0542	-0.1619
0.5	11.72	0.5758	0.0037	-0.0769	0.0507	0.0802	0.0622	-0.4283	0.1084	0.5774
0.5	10.72	0.5569	0.0057	-0.0615	0.0567	0.0906	0.0694	-0.4745	0.0861	0.4432
0.5	9.72	0.5754	0.0059	-0.0279	0.0523	0.0324	0.0274	-0.3069	0.0618	0.3570
0.5	9.22	0.5395	0.0053	-0.0266	0.0593	0.0338	0.0289	-0.1917	0.0492	0.2859
0.5	8.72	0.5481	0.0034	-0.0346	0.0536	0.0342	0.0267	-0.1545	-0.0687	0.2912
0.5	8.22	0.5538	0.0030	-0.0292	0.0515	0.0362	0.0291	-0.1868	0.0531	0.3200
0.5	7.72	0.5450	0.0043	-0.0359	0.0564	0.0364	0.0289	-0.2652	0.0194	0.2733
0.5	7.22	0.5246	0.0036	-0.0369	0.0575	0.0336	0.0265	-0.1535	-0.0916	0.2021
0.5	6.72	0.5310	0.0040	-0.0386	0.0554	0.0343	0.0286	-0.2861	0.2203	0.4246
0.5	6.22	0.5194	0.0005	-0.0390	0.0555	0.0380	0.0297	-0.1471	-0.0378	0.3425
0.5	5.72	0.5141	0.0018	-0.0428	0.0533	0.0343	0.0297	0.0921	0.0948	0.2885
0.5	5.22	0.5166	0.0053	-0.0477	0.0582	0.0382	0.0295	-0.1276	-0.0775	0.2887
0.5	4.72	0.4894	-0.0017	-0.0461	0.0616	0.0381	0.0335	-0.4805	-0.0708	0.3494
0.5	4.22	0.4810	-0.0052	-0.0502	0.0630	0.0380	0.0330	-0.7675	-0.1721	0.7564
0.5	3.72	0.4772	0.0010	-0.0490	0.0685	0.0447	0.0385	-0.6371	0.0300	0.6245
0.5	3.22	0.4197	-0.0109	-0.0520	0.0968	0.0477	0.0372	-1.1221	-0.1151	0.6970
0.5	2.92	0.3989	0.0092	-0.0570	0.1067	0.0467	0.0397	-0.9123	-0.0323	0.7203
0.5	2.62	0.3848	0.0088	-0.0540	0.1014	0.0549	0.0470	-0.9291	0.0382	1.0299
0.5	1.73	0.3013	-0.0054	-0.0580	0.1138	0.0606	0.0538	-0.6041	-0.1838	0.9560
0.5	1.23	0.2522	0.0108	-0.0645	0.1219	0.0639	0.0504	-0.3871	0.0967	0.7549

Table B1: Velocity Moments and Turbulence Parameters

x	z	u'w'	u'v'	v'w'	Ruw	Ruv	Rvw	Rkuw	Rkuv	Rkvw
90	11.23	0.9235	-0.3419	0.0390	0.4834	-0.1452	0.0307	0.1505	-0.0557	0.0064
90	10.23	0.9392	-0.3532	0.0335	0.4607	-0.1490	0.0266	0.1471	-0.0553	0.0053
90	8.73	1.0423	-0.3689	-0.0427	0.5252	-0.1453	-0.0317	0.1599	-0.0566	-0.0065
90	8.23	1.1127	-0.6145	0.1000	0.5325	-0.2259	0.0714	0.1600	-0.0883	0.0144
90	7.73	1.5149	-0.3816	0.1498	0.5387	-0.1110	0.0840	0.1672	-0.0421	0.0165
90	7.23	1.4193	-0.2379	0.0448	0.5638	-0.0769	0.0280	0.1745	-0.0292	0.0055
90	6.73	2.1781	-0.0773	0.1609	0.6141	-0.0194	0.0720	0.2010	-0.0071	0.0149
90	6.23	1.4881	-0.4482	-0.0495	0.6010	-0.1424	-0.0316	0.1815	-0.0547	-0.0060
90	5.73	1.6209	-0.2959	0.0543	0.5855	-0.0884	0.0296	0.1844	-0.0337	0.0062
90	5.23	1.6937	-0.5111	0.1162	0.5233	-0.1215	0.0467	0.1595	-0.0481	0.0109
90	4.73	1.1617	-0.8074	0.0298	0.4325	-0.1926	0.0131	0.1167	-0.0811	0.0030
90	4.23	1.0452	-0.5935	0.1085	0.4686	-0.1685	0.0619	0.1250	-0.0710	0.0130
90	3.73	0.9526	-0.0273	0.0491	0.4374	-0.0084	0.0290	0.1211	-0.0035	0.0062
90	3.43	0.8479	-0.4007	-0.0201	0.4025	-0.1104	-0.0106	0.1010	-0.0477	-0.0024
90	3.13	0.7411	-0.2593	-0.0215	0.3848	-0.0646	-0.0113	0.0829	-0.0290	-0.0024
90	2.83	0.4187	-0.0071	-0.0083	0.2800	-0.0019	-0.0056	0.0506	-0.0009	-0.0010
84	11.23	0.8943	-0.4088	0.0573	0.4867	-0.1848	0.0463	0.1542	-0.0705	0.0099
84	10.23	0.9091	-0.2596	-0.0303	0.4927	-0.1171	-0.0246	0.1560	-0.0446	-0.0052
84	9.23	1.1948	-0.3119	0.0158	0.5608	-0.1154	0.0108	0.1721	-0.0449	0.0023
84	8.73	1.0523	-0.3919	0.0253	0.5502	-0.1579	0.0191	0.1664	-0.0620	0.0040
84	8.23	1.4612	-0.2879	0.0748	0.5898	-0.1011	0.0468	0.1912	-0.0377	0.0098
84	7.73	1.2556	-0.2109	-0.0526	0.5255	-0.0712	-0.0339	0.1623	-0.0273	-0.0068
84	7.23	1.7123	-0.3921	0.0352	0.5986	-0.1180	0.0185	0.1936	-0.0443	0.0040
84	6.73	1.6168	-0.5639	0.1029	0.5605	-0.1584	0.0548	0.1736	-0.0606	0.0111
84	6.23	1.3770	-0.1254	0.0139	0.5393	-0.0384	0.0071	0.1659	-0.0151	0.0017
84	5.73	1.1088	-0.3498	-0.0792	0.4996	-0.1088	-0.0461	0.1417	-0.0447	-0.0101
84	5.23	0.9725	-0.2330	0.0791	0.4740	-0.0841	0.0450	0.1407	-0.0337	0.0114
84	4.73	1.2356	-0.1112	-0.0648	0.5279	-0.0370	-0.0382	0.1618	-0.0146	-0.0085
84	4.23	0.8940	-0.4027	-0.0326	0.4230	-0.1163	-0.0169	0.1099	-0.0495	-0.0040
84	3.73	0.5825	-0.4488	0.0247	0.3181	-0.1282	0.0162	0.0736	-0.0567	0.0031
84	3.43	0.4038	-0.3295	-0.0617	0.2975	-0.1020	-0.0389	0.0560	-0.0457	-0.0086
78.5	11.72	1.0598	-0.3785	0.0345	0.3924	-0.0958	0.0087	0.1107	-0.0395	0.0036
78.5	10.72	0.6683	-0.3839	-0.0456	0.4190	-0.1392	-0.0165	0.1049	-0.0603	-0.0072
78.5	9.72	0.6720	-0.0428	-0.1014	0.4199	-0.0233	-0.0916	0.1373	-0.0087	-0.0207
78.5	9.22	0.8733	-0.1020	0.0048	0.4951	-0.0481	0.0042	0.1560	-0.0182	0.0009
78.5	8.72	0.7524	-0.0262	-0.0984	0.4763	-0.0135	-0.0898	0.1492	-0.0052	-0.0195
78.5	8.22	0.8973	-0.1258	-0.0688	0.5050	-0.0566	-0.0545	0.1570	-0.0220	-0.0120
78.5	7.72	0.8700	-0.2171	0.0044	0.4923	-0.0977	0.0036	0.1515	-0.0378	0.0008
78.5	7.22	1.1748	0.0457	0.1224	0.5259	0.0163	0.0821	0.1620	0.0063	0.0169
78.5	6.72	1.1246	-0.0400	-0.0292	0.5450	-0.0163	-0.0222	0.1727	-0.0061	-0.0045
78.5	6.22	1.4551	0.1253	0.0697	0.5457	0.0394	0.0391	0.1736	0.0150	0.0083
78.5	5.72	1.1231	-0.1765	-0.0705	0.5687	-0.0657	-0.0525	0.1661	-0.0261	-0.0104
78.5	4.73	1.0377	-0.0752	-0.0158	0.5199	-0.0301	-0.0117	0.1605	-0.0116	-0.0024
78.5	4.23	1.1525	-0.0013	0.0686	0.4970	-0.0004	0.0379	0.1435	-0.0002	0.0085
78.5	4.22	0.5904	0.1016	0.0318	0.3988	0.0411	0.0258	0.1024	0.0176	0.0055
78.5	3.92	0.5306	-0.1278	-0.0260	0.3786	-0.0463	-0.0216	0.0856	-0.0206	-0.0042
75	11.23	0.4322	-0.0680	-0.0146	0.4025	-0.0506	-0.0185	0.1253	-0.0197	-0.0042
75	10.23	0.8769	-0.2355	-0.0480	0.4956	-0.1101	-0.0405	0.1564	-0.0420	-0.0086
75	9.23	1.0994	-0.4721	-0.0751	0.5387	-0.1916	-0.0537	0.1706	-0.0733	-0.0117
75	8.73	1.0207	-0.2363	-0.0184	0.5506	-0.1121	-0.0155	0.1795	-0.0416	-0.0032
75	8.23	0.9558	-0.3001	-0.0001	0.5167	-0.1385	-0.0001	0.1671	-0.0525	0.0000
75	7.73	1.2791	-0.3305	0.0073	0.5664	-0.1333	0.0054	0.1868	-0.0483	0.0011
75	7.23	0.8092	-0.1958	0.0348	0.4706	-0.0879	0.0296	0.1422	-0.0344	0.0061
75	6.73	1.1115	-0.0565	-0.0380	0.5340	-0.0233	-0.0249	0.1739	-0.0088	-0.0059
75	6.23	0.6817	-0.1041	0.0465	0.4513	-0.0455	0.0387	0.1243	-0.0190	0.0085
75	5.73	1.0622	-0.6106	-0.1101	0.4000	-0.1536	-0.0502	0.1111	-0.0639	-0.0115
75	5.23	0.6918	-0.4586	0.0549	0.4306	-0.2008	0.0427	0.1238	-0.0821	0.0098
75	4.73	0.5735	-0.4740	0.0245	0.3578	-0.1772	0.0151	0.0907	-0.0750	0.0039
75	4.23	0.4718	0.0167	-0.0167	0.4100	0.0074	-0.0156	0.0926	0.0033	-0.0033
72.5	11.72	0.7154	-0.3490	-0.0448	0.3414	-0.1116	-0.0143	0.0950	-0.0463	-0.0060
72.5	10.72	0.5620	-0.2188	-0.0578	0.2943	-0.0703	-0.0186	0.0765	-0.0298	-0.0079
72.5	9.72	1.0042	-0.4657	0.1953	0.5375	-0.1366	0.0573	0.1282	-0.0595	0.0249
72.5	9.22	2.2841	-0.6650	0.0619	0.6847	-0.1087	0.0101	0.1626	-0.0473	0.0044
72.5	8.72	0.7864	-0.1949	0.0211	0.4517	-0.1006	0.0185	0.1498	-0.0371	0.0040
72.5	8.22	0.7686	-0.1426	-0.0471	0.4493	-0.0695	-0.0406	0.1427	-0.0265	-0.0088
72.5	7.72	1.0757	-0.0569	0.0528	0.5654	-0.0254	0.0435	0.1799	-0.0095	0.0088
72.5	7.22	0.8577	-0.0672	-0.0310	0.5128	-0.0327	-0.0271	0.1607	-0.0126	-0.0058
72.5	6.72	1.1918	-0.0466	0.0045	0.5653	-0.0197	0.0034	0.1851	-0.0072	0.0007
72.5	6.22	1.0627	-0.1082	-0.0480	0.5330	-0.0440	-0.0346	0.1669	-0.0170	-0.0075

Table B1: Velocity Moments and Turbulence Parameters

x	z	u'w'	u'v'	v'w'	Ruw	Ruv	Rvw	Rkuw	Rkuv	Rkvw
72.5	5.72	1.1729	-0.0557	0.0081	0.5385	-0.0213	0.0053	0.1717	-0.0082	0.0012
72.5	5.22	1.1598	-0.2001	0.1428	0.5313	-0.0745	0.1002	0.1651	-0.0285	0.0203
72.5	4.23	0.8770	-0.0785	0.0775	0.4734	-0.0326	0.0523	0.1445	-0.0129	0.0128
72.5	3.73	1.0734	-0.1989	0.0286	0.5413	-0.0813	0.0200	0.1700	-0.0315	0.0045
72.5	3.23	0.6879	-0.0602	0.0946	0.3930	-0.0253	0.0637	0.1163	-0.0102	0.0160
72.5	2.93	0.7453	0.0057	-0.0543	0.3809	0.0021	-0.0373	0.1118	0.0009	-0.0081
69	11.23	0.5106	-0.1407	-0.0538	0.4167	-0.0954	-0.0623	0.1327	-0.0366	-0.0140
69	10.23	0.8358	-0.3451	0.0248	0.4680	-0.1529	0.0217	0.1423	-0.0588	0.0042
69	9.23	0.8237	-0.4188	0.0028	0.4804	-0.1917	0.0024	0.1470	-0.0747	0.0005
69	8.73	0.9193	-0.2359	0.0655	0.5107	-0.1106	0.0540	0.1635	-0.0419	0.0116
69	8.23	1.0006	0.0708	-0.0878	0.5479	0.0348	-0.0727	0.1816	0.0129	-0.0159
69	7.73	0.8455	-0.0090	0.0120	0.4651	-0.0041	0.0102	0.1450	-0.0016	0.0021
69	7.23	1.0452	-0.4908	0.0048	0.4735	-0.2052	0.0030	0.1606	-0.0754	0.0007
69	6.73	0.7030	-0.0648	-0.0620	0.4822	-0.0352	-0.0562	0.1497	-0.0138	-0.0132
69	6.23	0.7305	-0.0398	0.0160	0.3914	-0.0185	0.0113	0.1282	-0.0070	0.0028
69	5.73	0.6440	0.0114	-0.0007	0.3931	0.0053	-0.0005	0.1187	0.0021	-0.0001
69	5.23	0.5713	-0.3280	-0.0622	0.3593	-0.1745	-0.0545	0.1158	-0.0665	-0.0126
69	4.73	0.5185	0.1156	-0.0152	0.2767	0.0484	-0.0108	0.0854	0.0190	-0.0025
69	4.23	0.4385	0.0692	-0.1054	0.2588	0.0296	-0.0623	0.0743	0.0117	-0.0179
69	3.73	0.6322	-1.1706	-0.0956	0.2423	-0.3304	-0.0480	0.0717	-0.1328	-0.0108
69	3.23	1.4899	-0.5209	-0.0214	0.4592	-0.1084	-0.0079	0.1285	-0.0449	-0.0018
69	2.73	2.4355	-0.5648	0.0857	0.7189	-0.1254	0.0362	0.2142	-0.0497	0.0075
69	2.23	4.5975	-0.3257	-0.1390	0.7707	-0.0502	-0.0433	0.2484	-0.0176	-0.0075
69	1.73	5.1418	-1.2161	0.3121	0.7065	-0.1508	0.0673	0.2340	-0.0553	0.0142
69	1.23	3.2569	-0.7428	0.1796	0.6120	-0.1191	0.0423	0.1984	-0.0453	0.0109
66	11.23	1.1405	-0.4570	-0.0191	0.5138	-0.1881	-0.0142	0.1700	-0.0681	-0.0029
66	10.23	0.9157	-0.4014	0.1107	0.4928	-0.1826	0.0882	0.1578	-0.0692	0.0191
66	9.23	1.0173	-0.2915	-0.0567	0.5046	-0.1242	-0.0434	0.1624	-0.0465	-0.0090
66	8.73	0.9139	-0.5565	0.0252	0.4472	-0.2225	0.0189	0.1394	-0.0849	0.0038
66	8.23	0.8860	-0.3407	0.1284	0.4767	-0.1463	0.1031	0.1469	-0.0565	0.0213
66	7.73	1.3330	-0.3340	0.1446	0.5828	-0.1236	0.1001	0.1850	-0.0463	0.0201
66	7.23	0.9644	-0.2684	0.0376	0.4574	-0.1061	0.0260	0.1455	-0.0405	0.0057
66	6.73	0.9509	-0.1525	-0.0071	0.4703	-0.0622	-0.0053	0.1476	-0.0237	-0.0011
66	6.23	0.9351	-0.3994	0.0231	0.4658	-0.1609	0.0160	0.1460	-0.0624	0.0036
66	5.73	0.7752	-0.3289	0.0218	0.4153	-0.1420	0.0160	0.1300	-0.0551	0.0036
66	5.23	0.7510	-0.0658	-0.0383	0.3623	-0.0255	-0.0216	0.1130	-0.0099	-0.0058
66	4.73	0.9628	-0.1198	0.0123	0.4015	-0.0434	0.0070	0.1317	-0.0164	0.0017
66	4.23	0.9644	-0.4519	-0.0901	0.4059	-0.1401	-0.0491	0.1203	-0.0564	-0.0112
66	3.73	1.3611	-0.0821	-0.0662	0.5173	-0.0238	-0.0343	0.1564	-0.0094	-0.0076
66	3.23	2.3530	-0.4269	0.2571	0.5809	-0.0879	0.0958	0.1840	-0.0334	0.0201
66	2.73	4.0006	-0.7200	0.2956	0.7335	-0.1183	0.0944	0.2367	-0.0426	0.0175
66	2.23	4.9744	-1.3223	0.5633	0.7658	-0.1894	0.1453	0.2555	-0.0679	0.0289
66	1.73	7.1974	-1.3012	0.4750	0.7238	-0.1170	0.0749	0.2383	-0.0431	0.0157
66	1.23	6.1619	-1.6458	0.7019	0.6852	-0.1630	0.1186	0.2261	-0.0604	0.0258
66	0.73	5.6015	-0.1558	-0.1122	0.6938	-0.0155	-0.0181	0.2172	-0.0060	-0.0043
63.5	11.72	0.3838	-0.0516	-0.0001	0.3870	-0.0415	-0.0001	0.1206	-0.0162	0.0000
63.5	10.72	0.6692	-0.1930	-0.0018	0.4244	-0.1018	-0.0017	0.1336	-0.0385	-0.0004
63.5	9.72	1.0962	-0.3006	0.0020	0.5734	-0.1372	0.0016	0.1857	-0.0509	0.0003
63.5	9.22	0.8060	-0.0876	0.0753	0.4982	-0.0451	0.0717	0.1571	-0.0171	0.0147
63.5	8.72	0.8669	-0.2515	0.0550	0.4947	-0.1283	0.0508	0.1620	-0.0470	0.0103
63.5	8.22	0.9355	-0.0633	-0.0521	0.5136	-0.0298	-0.0472	0.1630	-0.0110	-0.0091
63.5	7.72	0.6836	-0.1819	0.0340	0.4719	-0.0993	0.0361	0.1439	-0.0383	0.0072
63.5	7.22	0.8703	0.0325	0.0084	0.4986	0.0147	0.0071	0.1533	0.0057	0.0015
63.5	6.72	0.5000	-0.0122	-0.0016	0.3950	-0.0076	-0.0017	0.1218	-0.0030	-0.0004
63.5	6.22	0.9773	-0.3632	-0.0481	0.4871	-0.1577	-0.0365	0.1585	-0.0589	-0.0078
63.5	5.72	0.6547	-0.2726	-0.0740	0.3593	-0.1320	-0.0624	0.1177	-0.0490	-0.0133
63.5	5.22	0.8090	-0.1135	-0.0354	0.3759	-0.0433	-0.0209	0.1192	-0.0167	-0.0052
63.5	4.72	0.5457	0.2696	-0.0575	0.3224	0.1301	-0.0425	0.1019	0.0504	-0.0107
63.5	4.22	1.0881	-0.1243	0.0091	0.4141	-0.0401	0.0051	0.1330	-0.0152	0.0011
63.5	3.92	1.4497	0.2691	-0.1416	0.5049	0.0719	-0.0665	0.1533	0.0284	-0.0150
63.5	3.62	2.0035	0.0457	0.1124	0.5877	0.0111	0.0483	0.1863	0.0042	0.0105
63.5	3.32	2.7531	-0.0352	0.0294	0.6098	-0.0066	0.0101	0.1951	-0.0025	0.0021
63.5	2.72	4.1219	-0.6136	0.3158	0.6620	-0.0831	0.0889	0.2045	-0.0305	0.0157
63.5	2.22	6.1240	-0.0260	-0.2480	0.6919	-0.0027	-0.0457	0.2286	-0.0010	-0.0093
63.5	1.72	5.1628	-0.5968	0.1897	0.6559	-0.0629	0.0340	0.2087	-0.0241	0.0077
63.5	1.22	3.6946	0.1918	-0.5200	0.6182	0.0256	-0.1374	0.1887	0.0098	-0.0266
60	11.23	0.6028	-0.2868	-0.0786	0.4312	-0.1667	-0.0847	0.1343	-0.0639	-0.0175
60	10.23	0.6699	-0.2851	0.0171	0.4594	-0.1592	0.0174	0.1436	-0.0611	0.0037
60	9.23	0.9833	-0.7374	0.0094	0.4935	-0.2847	0.0072	0.1480	-0.1110	0.0014

Table B1: Velocity Moments and Turbulence Parameters

x	z	u'w'	u'v'	v'w'	Ruw	Ruv	Rvw	Rkuw	Rkuv	Rkvw
60	8.73	0.8965	-0.6096	0.0606	0.4739	-0.2601	0.0496	0.1463	-0.0995	0.0099
60	8.23	0.8839	-0.4918	0.0342	0.4954	-0.2252	0.0300	0.1539	-0.0856	0.0059
60	7.73	1.0547	-0.2614	0.0543	0.5415	-0.1170	0.0432	0.1758	-0.0436	0.0090
60	7.23	0.7002	-0.4472	0.0093	0.4275	-0.2274	0.0086	0.1353	-0.0864	0.0018
60	6.73	1.0825	-0.2431	0.0589	0.4848	-0.0962	0.0405	0.1588	-0.0357	0.0086
60	6.23	0.9150	-0.3622	-0.0856	0.4588	-0.1531	-0.0648	0.1463	-0.0579	-0.0137
60	5.73	0.8388	-0.3317	0.0363	0.4424	-0.1478	0.0266	0.1425	-0.0564	0.0062
60	5.23	0.8886	-0.2450	0.0120	0.4578	-0.0985	0.0095	0.1383	-0.0381	0.0019
60	4.73	1.4279	-0.5643	0.0242	0.5269	-0.1886	0.0131	0.1762	-0.0696	0.0030
60	4.23	1.6496	-0.5209	0.0854	0.5322	-0.1483	0.0418	0.1746	-0.0551	0.0090
60	3.73	2.0909	-0.2097	0.0980	0.5952	-0.0510	0.0451	0.1893	-0.0190	0.0089
60	3.23	1.8377	-0.7000	0.0836	0.5310	-0.1579	0.0354	0.1617	-0.0616	0.0074
60	2.73	2.2218	-0.4442	0.0571	0.6081	-0.0981	0.0247	0.1869	-0.0374	0.0048
60	2.23	4.5408	-0.5696	0.3208	0.6156	-0.0681	0.0725	0.1985	-0.0249	0.0140
60	1.73	4.1504	-0.7358	-0.0052	0.5916	-0.0885	-0.0013	0.1846	-0.0327	-0.0002
60	1.23	4.4390	-0.1997	-0.1504	0.6147	-0.0219	-0.0289	0.1899	-0.0085	-0.0064
60	0.93	3.3853	-0.3000	0.2723	0.5498	-0.0345	0.0598	0.1582	-0.0140	0.0127
57.5	11.72	0.4484	-0.1047	-0.0337	0.4011	-0.0762	-0.0425	0.1261	-0.0294	-0.0095
57.5	10.72	0.8156	-0.2113	0.0297	0.4666	-0.1011	0.0280	0.1456	-0.0377	0.0053
57.5	9.72	0.7765	-0.2466	0.0579	0.4739	-0.1172	0.0518	0.1441	-0.0457	0.0107
57.5	9.22	0.6789	-0.0574	0.0711	0.4394	-0.0276	0.0655	0.1299	-0.0110	0.0136
57.5	8.72	0.7754	0.0203	0.0112	0.5133	0.0111	0.0116	0.1600	0.0042	0.0023
57.5	8.22	0.7879	-0.0881	0.0275	0.4951	-0.0455	0.0268	0.1546	-0.0173	0.0054
57.5	7.72	1.1150	-0.2380	-0.0039	0.5569	-0.0996	-0.0030	0.1761	-0.0376	-0.0006
57.5	7.22	0.7006	-0.1219	-0.0249	0.5052	-0.0700	-0.0259	0.1562	-0.0272	-0.0055
57.5	6.72	0.8399	-0.0309	0.0222	0.4798	-0.0144	0.0193	0.1499	-0.0055	0.0040
57.5	6.22	0.7350	-0.0209	0.1309	0.4519	-0.0101	0.1187	0.1378	-0.0039	0.0245
57.5	5.72	0.6785	-0.2440	-0.0455	0.4602	-0.1323	-0.0446	0.1427	-0.0513	-0.0096
57.5	5.22	1.3489	0.2358	-0.0045	0.5484	0.0831	-0.0028	0.1775	0.0310	-0.0006
57.5	4.72	1.1073	0.5076	0.0187	0.4713	0.1748	0.0112	0.1476	0.0677	0.0025
57.5	4.22	1.0338	-0.2733	0.0021	0.4421	-0.0903	0.0014	0.1325	-0.0350	0.0003
57.5	3.72	1.2577	-0.1579	0.0793	0.5136	-0.0490	0.0457	0.1544	-0.0194	0.0097
57.5	3.22	1.5390	-0.4465	0.0897	0.4908	-0.1010	0.0403	0.1407	-0.0408	0.0082
57.5	2.72	3.8119	-0.3471	0.2304	0.6051	-0.0477	0.0566	0.1957	-0.0178	0.0118
57.5	2.22	2.8171	-0.5975	0.0306	0.5764	-0.0975	0.0097	0.1763	-0.0374	0.0019
57.5	1.72	3.1159	-0.2382	0.3681	0.5434	-0.0319	0.0846	0.1652	-0.0126	0.0195
57.5	1.22	3.5894	0.2503	0.3990	0.5555	0.0312	0.0957	0.1712	0.0119	0.0190
54.5	11.72	0.6396	-0.2261	0.0132	0.4073	-0.1236	0.0130	0.1310	-0.0463	0.0027
54.5	10.72	0.7922	-0.2737	0.0538	0.4749	-0.1354	0.0486	0.1494	-0.0516	0.0101
54.5	9.72	0.9006	-0.0290	-0.0590	0.4646	-0.0115	-0.0466	0.1389	-0.0045	-0.0091
54.5	9.22	0.8110	-0.3640	-0.0091	0.4722	-0.1730	-0.0088	0.1447	-0.0649	-0.0016
54.5	8.72	0.9837	-0.1935	0.0380	0.5530	-0.0913	0.0352	0.1731	-0.0341	0.0067
54.5	8.22	1.1919	-0.1681	0.0594	0.5573	-0.0662	0.0497	0.1710	-0.0241	0.0085
54.5	7.72	0.9783	-0.1805	0.0033	0.4852	-0.0699	0.0025	0.1474	-0.0272	0.0005
54.5	7.22	1.0363	0.1276	-0.0442	0.5116	0.0524	-0.0339	0.1610	0.0198	-0.0069
54.5	6.72	0.8917	-0.4142	0.0507	0.4815	-0.1752	0.0416	0.1461	-0.0679	0.0083
54.5	6.22	0.9410	-0.2482	0.0413	0.4931	-0.1042	0.0324	0.1523	-0.0402	0.0067
54.5	5.72	1.3100	0.1161	0.0728	0.5862	0.0396	0.0474	0.1759	0.0156	0.0098
54.5	5.22	1.7507	-0.0937	0.0859	0.5586	-0.0255	0.0447	0.1770	-0.0095	0.0087
54.5	4.72	1.4069	-0.1664	0.0207	0.5227	-0.0476	0.0115	0.1572	-0.0186	0.0023
54.5	4.22	1.1450	-0.0322	0.0295	0.4952	-0.0098	0.0188	0.1402	-0.0039	0.0036
54.5	3.72	1.7495	-0.0508	0.0622	0.5757	-0.0125	0.0322	0.1678	-0.0049	0.0060
54.5	3.22	2.3620	0.1036	0.0985	0.5908	0.0185	0.0380	0.1674	0.0073	0.0070
54.5	2.72	1.8384	-0.3368	-0.0432	0.3454	-0.0152	-0.0137	0.0358	-0.0066	-0.0008
54.5	2.22	2.3340	-0.1953	-0.1281	0.4288	-0.0083	-0.0364	0.0444	-0.0037	-0.0024
51	11.23	0.6410	-0.0263	-0.0384	0.4580	-0.0153	-0.0394	0.1441	-0.0059	-0.0086
51	10.23	0.6194	-0.1076	0.0596	0.4164	-0.0565	0.0582	0.1270	-0.0221	0.0122
51	9.23	0.6786	-0.4459	-0.1272	0.4004	-0.2115	-0.1125	0.1239	-0.0814	-0.0232
51	8.73	0.7232	-0.1865	-0.0083	0.4708	-0.0963	-0.0082	0.1440	-0.0371	-0.0017
51	8.23	0.8649	-0.4537	-0.0283	0.4332	-0.1953	-0.0213	0.1400	-0.0734	-0.0046
51	7.73	0.8192	-0.3904	0.0081	0.4567	-0.1697	0.0061	0.1401	-0.0668	0.0014
51	7.23	1.2444	-0.3214	0.1120	0.5339	-0.1129	0.0648	0.1690	-0.0436	0.0152
51	6.73	0.8922	-0.4492	0.0785	0.4486	-0.1959	0.0563	0.1466	-0.0738	0.0129
51	6.23	0.9504	-0.1193	-0.0568	0.5196	-0.0479	-0.0411	0.1535	-0.0193	-0.0092
51	5.73	1.6132	-0.0625	-0.0670	0.5252	-0.0178	-0.0391	0.1657	-0.0064	-0.0069
51	5.23	1.5526	-0.5539	-0.0562	0.5041	-0.1607	-0.0313	0.1629	-0.0581	-0.0059
51	4.73	1.8190	-0.3850	0.0015	0.5907	-0.1003	0.0008	0.1806	-0.0382	0.0001
51	4.23	2.2164	0.3708	-0.0310	0.6026	0.0804	-0.0126	0.1856	0.0310	-0.0026
51	3.73	3.1475	-0.1799	-0.0625	0.6301	-0.0306	-0.0186	0.2023	-0.0116	-0.0040

Table B1: Velocity Moments and Turbulence Parameters

x	z	u'w'	u'v'	v'w'	Ruw	Ruv	Rvw	Rkuw	Rkuv	Rkvw
51	3.23	1.5510	-0.1670	-0.0403	0.4682	-0.0320	-0.0190	0.1210	-0.0130	-0.0031
51	2.73	3.1655	-0.2903	0.0426	0.6114	-0.0513	0.0139	0.2016	-0.0185	0.0027
51	2.23	1.7927	-0.3666	0.1087	0.4890	-0.0771	0.0444	0.1471	-0.0301	0.0089
51	1.93	1.5239	-0.2938	0.1226	0.4165	-0.0525	0.0401	0.1140	-0.0220	0.0092
51	1.63	1.7444	-0.1720	0.0324	0.5045	-0.0324	0.0122	0.1371	-0.0135	0.0025
48.5	11.72	2.2823	-0.0474	-0.0553	0.5289	-0.0088	-0.0102	0.1640	-0.0034	-0.0040
48.5	10.72	1.9000	-0.1309	0.0638	0.4807	-0.0237	0.0115	0.1395	-0.0096	0.0047
48.5	9.72	1.2972	-0.5265	0.1024	0.3482	-0.0820	0.0160	0.0872	-0.0354	0.0069
48.5	9.22	0.5250	-0.1380	-0.0236	0.4349	-0.0855	-0.0275	0.1294	-0.0340	-0.0058
48.5	8.72	0.6230	-0.1525	-0.0220	0.4734	-0.0939	-0.0238	0.1482	-0.0363	-0.0052
48.5	8.22	0.9460	-0.4834	0.0217	0.5002	-0.1964	0.0172	0.1502	-0.0767	0.0034
48.5	7.72	0.8795	-0.3153	0.0051	0.4943	-0.1479	0.0047	0.1542	-0.0553	0.0009
48.5	7.22	0.9237	-0.3275	0.0496	0.5343	-0.1522	0.0462	0.1631	-0.0578	0.0088
48.5	6.72	0.9500	-0.0735	0.0715	0.5405	-0.0313	0.0621	0.1589	-0.0123	0.0120
48.5	6.22	0.8421	-0.3520	0.0233	0.5104	-0.1701	0.0211	0.1572	-0.0657	0.0044
48.5	5.72	1.1136	-0.0035	-0.0864	0.5268	-0.0013	-0.0629	0.1593	-0.0005	-0.0124
48.5	5.22	0.9005	-0.0298	-0.1793	0.4739	-0.0119	-0.1394	0.1415	-0.0047	-0.0282
48.5	4.72	1.0129	-0.2685	0.0224	0.5194	-0.1050	0.0169	0.1555	-0.0412	0.0034
48.5	4.22	0.8460	-0.0130	-0.0966	0.4685	-0.0053	-0.0824	0.1362	-0.0021	-0.0155
48.5	3.72	1.8155	0.1023	-0.1370	0.6254	0.0286	-0.0754	0.1927	0.0109	-0.0145
48.5	2.73	2.0916	-0.2109	0.0467	0.6105	-0.0487	0.0241	0.1797	-0.0181	0.0040
48.5	2.23	1.5276	0.1984	0.0619	0.5565	0.0530	0.0364	0.1590	0.0206	0.0064
48.5	1.73	1.7711	-0.4094	-0.0302	0.5689	-0.0980	-0.0150	0.1663	-0.0384	-0.0028
45	11.23	0.8175	-0.1469	-0.0048	0.5023	-0.0735	-0.0043	0.1575	-0.0283	-0.0009
45	10.23	0.6879	-0.2671	-0.0543	0.4520	-0.1469	-0.0544	0.1433	-0.0557	-0.0113
45	9.23	0.7285	-0.4586	0.0322	0.4776	-0.2400	0.0324	0.1465	-0.0922	0.0065
45	8.73	0.9009	-0.2989	-0.0051	0.5319	-0.1424	-0.0045	0.1652	-0.0548	-0.0009
45	8.23	0.8906	-0.1871	-0.0059	0.5440	-0.0968	-0.0055	0.1739	-0.0365	-0.0012
45	7.73	1.0627	-0.5476	-0.0600	0.5296	-0.2280	-0.0431	0.1689	-0.0870	-0.0095
45	7.23	1.2258	-0.3540	-0.0316	0.5503	-0.1302	-0.0226	0.1707	-0.0493	-0.0044
45	6.73	1.3546	-0.4232	-0.0114	0.5359	-0.1505	-0.0078	0.1735	-0.0542	-0.0015
45	6.23	1.0269	-0.2405	-0.0109	0.5498	-0.0989	-0.0087	0.1652	-0.0387	-0.0018
45	5.73	1.4033	-0.4385	0.0795	0.5620	-0.1377	0.0496	0.1699	-0.0531	0.0096
45	5.23	1.4486	0.0490	0.0002	0.5733	0.0145	0.0001	0.1696	0.0057	0.0000
45	4.73	1.0502	-0.2839	-0.0547	0.4659	-0.0875	-0.0356	0.1307	-0.0353	-0.0068
45	4.23	1.9644	-0.3102	0.0576	0.5682	-0.0676	0.0269	0.1655	-0.0261	0.0049
45	3.73	1.0050	-0.2512	0.0003	0.5225	-0.0896	0.0002	0.1471	-0.0368	0.0000
45	3.23	2.2348	-0.9440	0.2691	0.5854	-0.1935	0.1095	0.1767	-0.0747	0.0213
45	2.73	1.1817	-0.2408	-0.2880	0.4248	-0.0621	-0.1480	0.1224	-0.0249	-0.0298
45	2.23	1.1960	-0.3227	-0.0537	0.4532	-0.0810	-0.0251	0.1251	-0.0338	-0.0056
42	11.23	0.6417	-0.4297	0.0798	0.3977	-0.2110	0.0740	0.1219	-0.0817	0.0152
42	10.23	0.4441	-0.2558	0.0609	0.3149	-0.1573	0.0678	0.1017	-0.0586	0.0139
42	9.23	1.0049	-0.3735	0.0652	0.5152	-0.1558	0.0490	0.1612	-0.0599	0.0105
42	8.73	1.1203	-0.4768	-0.0637	0.5215	-0.1923	-0.0429	0.1701	-0.0724	-0.0097
42	7.73	0.8518	-0.3561	-0.0762	0.5261	-0.1679	-0.0646	0.1590	-0.0665	-0.0142
42	7.23	1.1452	-0.4042	0.0189	0.5161	-0.1408	0.0127	0.1558	-0.0550	0.0026
42	6.73	2.1637	-0.5796	0.2925	0.6294	-0.1590	0.1386	0.2128	-0.0570	0.0288
42	6.23	1.4190	-0.3851	0.2294	0.5693	-0.1181	0.1399	0.1699	-0.0461	0.0275
42	5.73	1.4590	-0.1536	0.0211	0.5730	-0.0443	0.0115	0.1684	-0.0177	0.0024
42	5.23	1.5756	-0.4096	0.0071	0.5283	-0.1139	0.0038	0.1653	-0.0430	0.0007
42	4.23	1.2527	-0.2018	0.0912	0.5743	-0.0585	0.0584	0.1513	-0.0244	0.0110
42	2.73	1.2572	-0.6489	0.0228	0.4685	-0.1614	0.0103	0.1300	-0.0671	0.0024
42	2.43	1.1039	-0.6268	-0.0155	0.4130	-0.1422	-0.0070	0.1070	-0.0608	-0.0015
39.5	11.72	0.5145	0.0421	0.0095	0.4202	0.0284	0.0107	0.1335	0.0109	0.0025
39.5	10.72	0.6215	-0.0463	0.0557	0.4278	-0.0249	0.0557	0.1305	-0.0097	0.0117
39.5	9.72	0.7540	-0.1999	-0.0769	0.4848	-0.0998	-0.0721	0.1472	-0.0390	-0.0150
39.5	9.22	0.7153	-0.1817	0.0049	0.4811	-0.0952	0.0048	0.1463	-0.0372	0.0010
39.5	8.72	1.1165	-0.2685	0.0606	0.5416	-0.1092	0.0462	0.1711	-0.0411	0.0093
39.5	8.22	0.9354	-0.4502	0.0782	0.4972	-0.1868	0.0568	0.1526	-0.0734	0.0128
39.5	7.72	1.2735	0.1423	0.0956	0.5452	0.0468	0.0581	0.1649	0.0184	0.0124
39.5	7.22	1.2648	-0.3875	0.1293	0.5504	-0.1397	0.0817	0.1744	-0.0534	0.0178
39.5	6.72	0.9231	-0.1241	0.0430	0.5317	-0.0530	0.0349	0.1570	-0.0211	0.0073
39.5	6.22	1.4362	0.0798	-0.0711	0.5311	0.0229	-0.0442	0.1564	0.0087	-0.0077
39.5	5.72	1.6228	-0.4493	0.0697	0.5650	-0.1308	0.0382	0.1781	-0.0493	0.0077
39.5	5.22	1.6791	-0.1160	0.1195	0.6002	-0.0322	0.0679	0.1795	-0.0124	0.0128
39.5	4.72	1.5358	0.2980	0.0157	0.5886	0.0868	0.0090	0.1754	0.0340	0.0018
39.5	4.22	1.7048	0.0302	0.0959	0.5413	0.0073	0.0422	0.1632	0.0029	0.0092
39.5	3.72	1.1108	-0.5630	-0.1330	0.4568	-0.1660	-0.0707	0.1329	-0.0674	-0.0159
39.5	3.22	0.7736	-0.6727	-0.0252	0.3695	-0.1880	-0.0136	0.0933	-0.0811	-0.0030

Table B1: Velocity Moments and Turbulence Parameters

x	z	u'w'	u'v'	v'w'	Ruw	Ruv	Rvw	Rkuw	Rkuv	Rkvw
39.5	2.72	0.9010	0.0169	0.0159	0.4451	0.0055	0.0103	0.1218	0.0023	0.0021
36	11.23	0.5076	-0.2383	0.0664	0.3545	-0.1322	0.0644	0.1099	-0.0516	0.0144
36	10.23	0.7296	-0.2964	-0.0002	0.4594	-0.1470	-0.0002	0.1412	-0.0574	0.0000
36	9.23	0.7655	-0.0460	-0.0007	0.5005	-0.0238	-0.0006	0.1549	-0.0093	-0.0001
36	8.73	1.1651	-0.4214	0.1574	0.5320	-0.1581	0.1111	0.1662	-0.0601	0.0225
36	8.23	0.9997	-0.2567	0.0501	0.5219	-0.1042	0.0388	0.1582	-0.0406	0.0079
36	7.73	1.0185	-0.2229	-0.0084	0.5577	-0.0969	-0.0066	0.1723	-0.0377	-0.0014
36	7.23	1.2715	0.0654	0.0547	0.5307	0.0232	0.0368	0.1683	0.0087	0.0072
36	6.73	1.1482	-0.1014	0.0100	0.5529	-0.0376	0.0067	0.1678	-0.0148	0.0015
36	6.23	1.6266	-0.3153	0.0540	0.5718	-0.0922	0.0304	0.1790	-0.0347	0.0059
36	5.73	1.1837	-0.0825	0.0798	0.5645	-0.0289	0.0602	0.1625	-0.0113	0.0110
36	5.23	1.7569	-0.4374	0.1794	0.5841	-0.1132	0.0833	0.1786	-0.0445	0.0182
36	4.73	1.2336	-0.4066	-0.0864	0.4755	-0.1121	-0.0461	0.1374	-0.0453	-0.0096
36	4.23	1.1230	-0.4844	0.0052	0.5202	-0.1611	0.0032	0.1513	-0.0653	0.0007
36	3.73	1.1750	-0.6307	0.0806	0.4643	-0.1698	0.0364	0.1305	-0.0700	0.0090
36	3.23	0.9068	-0.2310	-0.1379	0.4183	-0.0699	-0.0820	0.1145	-0.0292	-0.0174
36	2.73	0.7357	-0.7254	-0.0264	0.3628	-0.1846	-0.0133	0.0828	-0.0817	-0.0030
33.5	11.72	0.7098	-0.1777	0.0627	0.4804	-0.0967	0.0622	0.1492	-0.0373	0.0132
33.5	10.72	0.6492	-0.2944	-0.0550	0.4645	-0.1802	-0.0624	0.1484	-0.0673	-0.0126
33.5	9.72	0.6948	-0.4495	0.0410	0.4663	-0.2402	0.0421	0.1429	-0.0925	0.0084
33.5	9.22	0.8032	-0.2162	0.0167	0.5193	-0.1123	0.0159	0.1612	-0.0434	0.0034
33.5	8.72	0.7031	-0.0604	-0.0131	0.5110	-0.0330	-0.0133	0.1523	-0.0131	-0.0028
33.5	8.22	1.1111	-0.4293	0.0463	0.5435	-0.1787	0.0349	0.1739	-0.0672	0.0072
33.5	7.72	1.1896	-0.2505	0.1293	0.5728	-0.0982	0.0991	0.1769	-0.0372	0.0192
33.5	7.22	1.3584	-0.2392	0.0144	0.5431	-0.0864	0.0102	0.1752	-0.0309	0.0019
33.5	6.72	0.9180	-0.1158	0.0267	0.5678	-0.0522	0.0252	0.1635	-0.0206	0.0048
33.5	6.22	1.1955	-0.1954	0.1156	0.5969	-0.0751	0.0868	0.1792	-0.0293	0.0173
33.5	5.72	1.3214	0.1025	0.0827	0.6173	0.0369	0.0548	0.1872	0.0145	0.0117
33.5	5.22	0.8932	-0.1731	-0.0019	0.4514	-0.0616	-0.0014	0.1272	-0.0247	-0.0003
33.5	4.72	1.1840	-0.0924	0.0430	0.5164	-0.0286	0.0280	0.1467	-0.0114	0.0053
33.5	4.22	1.1056	-0.1764	0.1411	0.4934	-0.0560	0.0798	0.1430	-0.0228	0.0182
33.5	3.72	0.9192	-1.2851	0.0722	0.4197	-0.3390	0.0348	0.1046	-0.1462	0.0082
33.5	3.22	0.8035	-0.1196	-0.0848	0.4218	-0.0427	-0.0571	0.1184	-0.0176	-0.0125
30.5	11.72	0.7545	-0.6715	0.0519	0.3415	-0.1643	0.0127	0.0808	-0.0719	0.0056
30.5	10.72	0.4184	-0.3275	-0.0165	0.3262	-0.0909	-0.0046	0.0542	-0.0424	-0.0021
30.5	9.72	0.6831	-0.3073	0.2042	0.4901	-0.1931	0.2104	0.1610	-0.0724	0.0481
30.5	9.22	0.4292	-0.2710	0.0165	0.3662	-0.1897	0.0190	0.1160	-0.0733	0.0045
30.5	8.72	0.9890	-0.0571	-0.0393	0.5544	-0.0262	-0.0326	0.1741	-0.0100	-0.0069
30.5	8.22	1.0474	-0.2672	-0.0354	0.5384	-0.1124	-0.0258	0.1697	-0.0433	-0.0057
30.5	7.72	1.0688	-0.1671	-0.0428	0.5583	-0.0686	-0.0334	0.1703	-0.0266	-0.0068
30.5	7.22	0.8232	-0.2314	-0.1597	0.5018	-0.1048	-0.1277	0.1494	-0.0420	-0.0290
30.5	6.72	1.2105	-0.0752	-0.0137	0.5531	-0.0280	-0.0102	0.1703	-0.0106	-0.0019
30.5	6.22	1.4295	-0.1680	0.1130	0.6373	-0.0598	0.0769	0.1958	-0.0230	0.0155
30.5	5.72	1.2976	-0.1891	-0.0498	0.5759	-0.0658	-0.0349	0.1734	-0.0253	-0.0066
30.5	5.22	1.2154	0.1781	-0.0504	0.5960	0.0605	-0.0329	0.1690	0.0248	-0.0070
30.5	4.72	1.2335	-0.1043	0.0096	0.5456	-0.0359	0.0065	0.1645	-0.0139	0.0013
30.5	4.22	0.9900	-0.0574	-0.0146	0.4807	-0.0195	-0.0099	0.1369	-0.0079	-0.0020
30.5	3.23	0.7442	-0.0685	-0.0472	0.4171	-0.0248	-0.0375	0.1116	-0.0103	-0.0071
30.5	2.73	0.9777	-0.2582	0.0563	0.3762	-0.0480	0.0252	0.0818	-0.0216	0.0047
27	11.23	0.5413	-0.1559	-0.0623	0.4419	-0.0977	-0.0688	0.1342	-0.0386	-0.0154
27	10.23	0.8303	-0.3527	-0.0341	0.4850	-0.1657	-0.0289	0.1509	-0.0641	-0.0062
27	9.23	1.0990	-0.0956	0.0152	0.5810	-0.0408	0.0118	0.1810	-0.0157	0.0025
27	8.73	0.9269	-0.2421	0.0159	0.5406	-0.1132	0.0126	0.1688	-0.0441	0.0029
27	8.23	0.6087	-0.3791	0.0293	0.4605	-0.2213	0.0316	0.1396	-0.0870	0.0067
27	7.73	1.4394	-0.2101	0.0189	0.5590	-0.0677	0.0117	0.1749	-0.0255	0.0023
27	7.23	1.4153	-0.5427	0.1004	0.5950	-0.1889	0.0654	0.1868	-0.0716	0.0133
27	6.73	0.8692	-0.1056	-0.0005	0.5282	-0.0453	-0.0004	0.1522	-0.0185	-0.0001
27	6.23	1.3236	-0.1854	-0.0652	0.5677	-0.0632	-0.0421	0.1742	-0.0244	-0.0086
27	5.73	1.0474	-0.6351	-0.0706	0.4840	-0.2081	-0.0402	0.1400	-0.0849	-0.0094
27	5.23	1.1923	-0.1354	-0.0599	0.5196	-0.0366	-0.0322	0.1368	-0.0155	-0.0069
27	4.73	0.8275	-0.2507	0.1276	0.4394	-0.0997	0.0900	0.1315	-0.0398	0.0203
27	4.23	0.7136	-0.3225	-0.1311	0.4187	-0.1310	-0.1125	0.1172	-0.0530	-0.0215
27	3.73	0.5921	-0.6270	-0.0392	0.3685	-0.2261	-0.0256	0.0919	-0.0973	-0.0061
27	3.43	0.6060	-0.4741	0.0455	0.4393	-0.1644	0.0350	0.0947	-0.0741	0.0071
24.5	11.72	0.7658	-0.3039	0.0375	0.3544	-0.0894	0.0110	0.0950	-0.0377	0.0046
24.5	10.72	0.5873	-0.4679	-0.0116	0.3397	-0.1355	-0.0033	0.0756	-0.0603	-0.0015
24.5	9.72	0.6038	-0.2204	0.0578	0.4292	-0.1282	0.0584	0.1353	-0.0494	0.0130
24.5	9.22	0.7496	-0.0854	-0.0366	0.4877	-0.0462	-0.0344	0.1551	-0.0177	-0.0076
24.5	8.72	0.6232	0.0034	-0.0136	0.4606	0.0019	-0.0132	0.1393	0.0008	-0.0030

Table B1: Velocity Moments and Turbulence Parameters

x	z	u'w'	u'v'	v'w'	Ruw	Ruv	Rvw	Rkuw	Rkuv	Rkvw
24.5	8.22	1.1475	-0.1201	0.1270	0.5735	-0.0492	0.0945	0.1801	-0.0188	0.0199
24.5	7.72	0.9381	0.0600	0.0162	0.5195	0.0272	0.0134	0.1630	0.0104	0.0028
24.5	7.22	0.8877	-0.1656	0.0026	0.5563	-0.0812	0.0023	0.1705	-0.0318	0.0005
24.5	6.72	1.1157	0.0384	0.0584	0.5524	0.0154	0.0456	0.1705	0.0059	0.0089
24.5	6.22	0.9868	-0.0738	0.0062	0.5561	-0.0326	0.0047	0.1711	-0.0128	0.0011
24.5	5.72	1.1008	0.1410	-0.0201	0.5180	0.0545	-0.0142	0.1625	0.0208	-0.0030
24.5	5.22	0.9343	0.0046	0.0311	0.5107	0.0019	0.0267	0.1490	0.0007	0.0050
24.5	4.23	1.1357	-0.2303	0.1186	0.5378	-0.0816	0.0728	0.1609	-0.0326	0.0168
24.5	3.73	0.8047	-0.0950	-0.0236	0.3950	-0.0323	-0.0157	0.1120	-0.0132	-0.0033
24.5	3.72	0.7533	-0.0063	-0.0431	0.4562	-0.0022	-0.0322	0.1137	-0.0010	-0.0065
21	11.23	0.8398	-0.1484	-0.0389	0.4999	-0.0733	-0.0301	0.1597	-0.0282	-0.0074
21	10.23	0.6155	-0.3090	-0.0052	0.4677	-0.1734	-0.0053	0.1387	-0.0696	-0.0012
21	9.23	0.7585	-0.1545	-0.0426	0.4971	-0.0806	-0.0392	0.1542	-0.0314	-0.0087
21	8.73	1.2820	-0.2023	0.0797	0.5804	-0.0811	0.0580	0.1891	-0.0298	0.0118
21	8.23	0.9170	-0.2109	-0.0727	0.5632	-0.0975	-0.0665	0.1668	-0.0384	-0.0132
21	7.73	0.7646	-0.1007	0.0029	0.4588	-0.0468	0.0025	0.1395	-0.0184	0.0005
21	7.23	1.0075	-0.4232	0.0152	0.5316	-0.1819	0.0115	0.1669	-0.0701	0.0025
21	6.73	1.2696	-0.4079	-0.0176	0.5225	-0.1444	-0.0104	0.1697	-0.0545	-0.0023
21	6.23	1.1737	-0.4306	0.0489	0.5473	-0.1546	0.0309	0.1665	-0.0611	0.0069
21	5.73	0.9146	-0.2255	-0.0038	0.4822	-0.0772	-0.0027	0.1307	-0.0322	-0.0005
21	5.23	0.8318	-0.1851	0.0260	0.4867	-0.0785	0.0180	0.1426	-0.0317	0.0045
21	4.73	0.7484	-0.4221	-0.0354	0.4600	-0.1742	-0.0318	0.1258	-0.0709	-0.0059
21	4.23	0.6442	-0.4212	-0.0693	0.4419	-0.1662	-0.0593	0.1099	-0.0718	-0.0118
21	3.73	0.4162	0.0080	-0.0023	0.3542	0.0030	-0.0019	0.0707	0.0014	-0.0004
21	3.43	0.2912	-0.4768	-0.0373	0.3694	-0.1902	-0.0445	0.0551	-0.0902	-0.0071
21	3.13	0.0604	-0.1876	-0.0096	0.1280	-0.1122	-0.0224	0.0174	-0.0539	-0.0028
18	11.23	0.5420	-0.0157	-0.0663	0.4180	-0.0094	-0.0691	0.1283	-0.0037	-0.0157
18	10.23	0.9381	-0.1964	0.0325	0.5507	-0.0972	0.0279	0.1763	-0.0369	0.0061
18	9.23	1.0580	-0.2977	0.0298	0.5457	-0.1297	0.0229	0.1746	-0.0491	0.0049
18	8.73	1.0910	-0.4430	0.0128	0.5206	-0.1804	0.0088	0.1683	-0.0683	0.0020
18	8.23	1.0224	-0.3286	0.0333	0.5305	-0.1436	0.0262	0.1691	-0.0544	0.0055
18	7.73	1.1138	-0.2145	0.0092	0.5952	-0.0940	0.0069	0.1881	-0.0362	0.0016
18	7.23	1.1330	-0.3740	0.2141	0.5800	-0.1446	0.1554	0.1734	-0.0573	0.0328
18	6.73	1.0118	-0.3447	0.0567	0.5439	-0.1389	0.0421	0.1623	-0.0553	0.0091
18	6.23	0.9881	-0.6936	0.0932	0.4938	-0.2392	0.0555	0.1402	-0.0984	0.0132
18	5.73	0.9585	-0.1574	0.0174	0.5257	-0.0630	0.0121	0.1550	-0.0254	0.0028
18	5.23	0.9891	-0.0104	0.0051	0.5250	-0.0039	0.0037	0.1484	-0.0016	0.0008
18	4.73	0.8615	-0.3869	0.0081	0.4684	-0.1317	0.0051	0.1243	-0.0558	0.0012
18	4.23	0.5915	-0.1415	-0.0179	0.4385	-0.0507	-0.0140	0.0953	-0.0228	-0.0029
18	3.73	0.3229	0.0471	0.0540	0.3204	0.0168	0.0545	0.0542	0.0079	0.0091
18	3.23	0.0314	-0.1084	0.0367	0.0842	-0.0666	0.1001	0.0094	-0.0324	0.0110
15.5	11.72	0.4064	-0.0505	-0.0496	0.3763	-0.0375	-0.0581	0.1176	-0.0146	-0.0144
15.5	10.72	0.9067	-0.2044	-0.0750	0.5481	-0.1070	-0.0685	0.1779	-0.0401	-0.0147
15.5	9.72	0.8319	-0.0281	0.0445	0.5213	-0.0141	0.0395	0.1619	-0.0055	0.0087
15.5	9.22	0.7502	-0.1453	0.0055	0.5057	-0.0778	0.0049	0.1572	-0.0304	0.0012
15.5	8.72	0.5629	-0.3003	-0.0200	0.4836	-0.2045	-0.0247	0.1492	-0.0796	-0.0053
15.5	8.22	1.1081	-0.1177	0.0946	0.5290	-0.0460	0.0701	0.1648	-0.0175	0.0141
15.5	7.72	0.9362	-0.3276	0.0410	0.5274	-0.1526	0.0326	0.1675	-0.0586	0.0073
15.5	7.22	0.7797	-0.0404	-0.0281	0.5489	-0.0214	-0.0269	0.1643	-0.0085	-0.0059
15.5	6.72	0.8578	-0.1705	0.0783	0.4874	-0.0751	0.0619	0.1486	-0.0295	0.0136
15.5	6.22	0.7585	-0.2437	-0.1324	0.4256	-0.0970	-0.0904	0.1231	-0.0395	-0.0215
15.5	5.72	0.6445	-0.2057	-0.0584	0.4198	-0.0956	-0.0444	0.1217	-0.0389	-0.0110
15.5	5.22	0.6968	-0.3451	0.0422	0.4554	-0.1448	0.0309	0.1228	-0.0608	0.0074
15.5	4.72	0.6268	-0.3471	-0.0709	0.4254	-0.1657	-0.0676	0.1212	-0.0671	-0.0137
15.5	4.22	0.5160	-0.4048	0.0667	0.4132	-0.1808	0.0576	0.1005	-0.0788	0.0130
15.5	3.92	0.5095	-0.2820	-0.0081	0.4683	-0.1197	-0.0081	0.0982	-0.0543	-0.0016
12	11.23	0.6607	-0.2993	0.0314	0.4590	-0.1645	0.0309	0.1416	-0.0642	0.0067
12	10.23	1.1009	-0.2989	0.0570	0.5888	-0.1348	0.0467	0.1874	-0.0509	0.0097
12	9.23	0.6330	-0.2360	0.0198	0.4570	-0.1282	0.0199	0.1367	-0.0509	0.0043
12	8.73	1.0977	-0.2360	0.0837	0.5383	-0.1025	0.0623	0.1770	-0.0381	0.0135
12	8.23	0.8559	-0.0899	0.0067	0.5199	-0.0441	0.0058	0.1623	-0.0170	0.0013
12	7.73	0.8181	-0.0603	-0.0382	0.5338	-0.0328	-0.0342	0.1707	-0.0126	-0.0080
12	7.23	1.0102	-0.2427	0.0383	0.5584	-0.1167	0.0315	0.1819	-0.0437	0.0069
12	6.73	0.9538	-0.0667	0.0638	0.5046	-0.0284	0.0452	0.1580	-0.0111	0.0106
12	6.23	0.9053	-0.4031	0.0015	0.5191	-0.1875	0.0013	0.1624	-0.0723	0.0003
12	5.73	0.7938	-0.4374	0.0842	0.4635	-0.1623	0.0608	0.1242	-0.0684	0.0132
12	5.23	0.7087	-0.5112	0.0607	0.3592	-0.1582	0.0349	0.0935	-0.0675	0.0080
12	4.73	0.6896	-0.3626	0.0352	0.4392	-0.1607	0.0278	0.1254	-0.0659	0.0064
12	4.23	0.6459	-0.5437	0.0355	0.4324	-0.2327	0.0263	0.1162	-0.0978	0.0064

Table B1: Velocity Moments and Turbulence Parameters

x	z	u'w'	u'v'	v'w'	Ruw	Ruv	Rvw	Rkuw	Rkuv	Rkvw
12	3.73	0.5172	-0.3226	0.0356	0.3904	-0.1361	0.0259	0.0939	-0.0586	0.0065
12	3.23	0.7491	-0.3909	0.1322	0.5650	-0.1521	0.1059	0.1293	-0.0675	0.0228
12	2.73	1.8984	-0.6102	0.0492	0.7251	-0.1295	0.0294	0.1677	-0.0539	0.0043
12	2.43	1.5272	-0.8996	0.2870	0.6210	-0.1955	0.1369	0.1462	-0.0861	0.0275
12	2.13	0.2322	-0.5015	0.2894	0.3181	-0.2741	0.3302	0.0570	-0.1232	0.0711
9.5	11.72	0.6634	0.0053	-0.0362	0.4693	0.0031	-0.0336	0.1481	0.0012	-0.0081
9.5	10.72	0.5903	-0.3055	0.0542	0.4724	-0.1902	0.0601	0.1444	-0.0748	0.0133
9.5	9.72	0.6651	-0.1749	0.0047	0.4703	-0.0975	0.0048	0.1447	-0.0380	0.0010
9.5	9.22	0.9371	0.1052	0.0653	0.5287	0.0521	0.0609	0.1704	0.0191	0.0119
9.5	8.72	0.6766	-0.0820	-0.0131	0.4787	-0.0452	-0.0142	0.1446	-0.0175	-0.0028
9.5	8.22	0.6116	0.0075	0.0081	0.4363	0.0043	0.0086	0.1362	0.0017	0.0018
9.5	7.72	0.8896	-0.3025	-0.0059	0.5366	-0.1456	-0.0051	0.1660	-0.0565	-0.0011
9.5	7.22	1.0117	-0.1927	-0.0621	0.5155	-0.0813	-0.0459	0.1634	-0.0311	-0.0100
9.5	6.72	0.8719	-0.1973	-0.0098	0.4746	-0.0912	-0.0084	0.1513	-0.0342	-0.0017
9.5	6.22	0.8883	-0.1137	0.0178	0.5223	-0.0560	0.0148	0.1671	-0.0214	0.0033
9.5	5.72	0.7585	0.0269	0.0732	0.4833	0.0149	0.0581	0.1581	0.0056	0.0153
9.5	5.22	0.6829	-0.2600	-0.0415	0.4411	-0.1372	-0.0392	0.1384	-0.0527	-0.0084
9.5	4.72	0.5183	-0.1444	-0.0613	0.3384	-0.0770	-0.0542	0.1070	-0.0298	-0.0127
9.5	4.22	0.5651	0.0501	0.1152	0.3486	0.0225	0.0797	0.1020	0.0090	0.0208
9.5	3.92	0.4731	-0.2417	0.0060	0.3041	-0.0954	0.0044	0.0795	-0.0406	0.0010
9.5	3.62	0.8836	-0.0456	0.0592	0.4407	-0.0151	0.0364	0.1217	-0.0063	0.0081
9.5	3.22	3.0682	-0.2236	0.0484	0.6970	-0.0456	0.0174	0.2297	-0.0167	0.0036
9.5	2.72	3.9427	-0.1654	-0.0498	0.7134	-0.0267	-0.0139	0.2351	-0.0099	-0.0030
9.5	2.22	4.7472	-0.2901	0.1660	0.7073	-0.0390	0.0409	0.2319	-0.0142	0.0081
9.5	1.72	3.6389	0.4811	0.1679	0.6424	0.0699	0.0417	0.2035	0.0269	0.0094
6.5	11.72	7.1687	-0.7971	0.3674	0.6747	-0.0643	0.0297	0.2191	-0.0244	0.0112
6.5	10.72	5.3726	-1.0586	0.0530	0.6406	-0.0930	0.0047	0.1894	-0.0373	0.0019
6.5	9.72	0.4897	-0.0438	0.0322	0.3918	-0.0283	0.0355	0.1229	-0.0110	0.0081
6.5	9.22	0.8084	-0.0168	0.0038	0.5449	-0.0096	0.0040	0.1743	-0.0036	0.0008
6.5	8.72	0.8319	-0.1321	0.0311	0.5199	-0.0656	0.0293	0.1595	-0.0253	0.0060
6.5	8.22	0.9503	-0.2430	0.0194	0.5323	-0.1160	0.0165	0.1709	-0.0437	0.0035
6.5	7.72	0.9122	-0.2108	-0.0159	0.4908	-0.0945	-0.0138	0.1535	-0.0355	-0.0027
6.5	7.22	0.9387	-0.1243	0.0257	0.5224	-0.0568	0.0219	0.1634	-0.0216	0.0045
6.5	6.72	0.8587	0.0541	-0.0117	0.5235	0.0266	-0.0106	0.1627	0.0102	-0.0022
6.5	6.22	0.8979	-0.1498	-0.0259	0.5417	-0.0747	-0.0243	0.1697	-0.0283	-0.0049
6.5	5.72	0.8080	-0.2953	0.0369	0.4454	-0.1314	0.0291	0.1391	-0.0508	0.0063
6.5	5.22	0.7836	0.1349	-0.0560	0.4729	0.0669	-0.0497	0.1488	0.0256	-0.0106
6.5	4.72	0.7495	0.2780	0.0404	0.3864	0.1211	0.0319	0.1232	0.0457	0.0066
6.5	4.22	0.6344	-0.2649	0.1768	0.3371	-0.1097	0.1226	0.1035	-0.0432	0.0289
6.5	3.72	0.7153	0.1987	-0.0335	0.3525	0.0816	-0.0219	0.1128	0.0313	-0.0053
6.5	3.22	0.7984	0.1839	0.0876	0.3827	0.0726	0.0541	0.1217	0.0280	0.0133
6.5	2.72	1.3540	0.0763	0.2137	0.4982	0.0211	0.1004	0.1495	0.0084	0.0236
6.5	2.22	3.4374	-0.0795	0.3336	0.7101	-0.0131	0.1091	0.2163	-0.0050	0.0210
6.5	1.23	3.7538	0.0431	0.1665	0.6861	0.0067	0.0475	0.2199	0.0025	0.0098
6.5	0.73	5.2323	-0.0275	0.6264	0.6997	-0.0032	0.1368	0.2232	-0.0012	0.0267
6.5	0.72	4.3003	-0.8308	0.4537	0.5918	-0.0978	0.0839	0.1923	-0.0371	0.0203
0.5	11.72	4.1150	0.2565	-0.0741	0.5818	0.0281	-0.0081	0.1771	0.0110	-0.0032
0.5	10.72	4.9916	-0.2075	-0.3405	0.5902	-0.0188	-0.0308	0.1790	-0.0074	-0.0122
0.5	9.72	0.6685	-0.2189	0.0478	0.4818	-0.1332	0.0540	0.1530	-0.0501	0.0109
0.5	9.22	0.8541	-0.0462	-0.0276	0.5217	-0.0241	-0.0283	0.1646	-0.0089	-0.0053
0.5	8.72	0.5384	-0.2187	0.0429	0.3862	-0.1224	0.0471	0.1167	-0.0474	0.0093
0.5	8.22	0.8822	-0.1264	0.0579	0.5114	-0.0589	0.0550	0.1555	-0.0223	0.0102
0.5	7.72	0.7340	-0.1082	0.0152	0.4746	-0.0555	0.0144	0.1460	-0.0215	0.0030
0.5	7.22	0.6219	0.0499	-0.0331	0.4565	0.0288	-0.0372	0.1387	0.0111	-0.0074
0.5	6.72	0.8530	-0.0954	-0.0073	0.5281	-0.0493	-0.0075	0.1648	-0.0184	-0.0014
0.5	6.22	0.7969	0.1738	-0.0086	0.4668	0.0796	-0.0076	0.1415	0.0309	-0.0015
0.5	5.72	0.7367	-0.1538	-0.0352	0.4481	-0.0809	-0.0346	0.1437	-0.0300	-0.0069
0.5	5.22	0.6838	-0.0847	-0.0240	0.4180	-0.0399	-0.0213	0.1263	-0.0157	-0.0044
0.5	4.72	0.7506	0.0090	-0.0023	0.4197	0.0044	-0.0018	0.1386	0.0017	-0.0004
0.5	4.22	0.7996	-0.1890	-0.0047	0.4157	-0.0853	-0.0037	0.1348	-0.0319	-0.0008
0.5	3.72	1.0844	-0.2122	0.0136	0.4578	-0.0771	0.0079	0.1492	-0.0292	0.0019
0.5	3.22	1.0597	-0.1150	0.0048	0.4523	-0.0383	0.0027	0.1390	-0.0151	0.0006
0.5	2.92	1.3337	0.0527	0.1433	0.4906	0.0165	0.0774	0.1579	0.0062	0.0170
0.5	2.62	2.5884	0.3548	0.0819	0.5685	0.0668	0.0317	0.1774	0.0243	0.0056
0.5	1.73	3.7175	0.3759	0.0277	0.6480	0.0581	0.0085	0.2071	0.0209	0.0015
0.5	1.23	3.2505	0.2267	0.1379	0.6354	0.0350	0.0428	0.1923	0.0134	0.0082

Table B1: Velocity Moments and Turbulence Parameters

x	z	TKE	Intensity	Eddy Visc.	Turb. Prod.	Mix. Length
90	11.23	3.1	0.10	5.80E-04	1.470E-03	0.60
90	10.23	3.2	0.11	5.90E-04	1.490E-03	0.61
90	8.73	3.3	0.11	6.60E-04	1.660E-03	0.64
90	8.23	3.5	0.11	7.00E-04	1.770E-03	0.66
90	7.73	4.5	0.14	9.50E-04	2.410E-03	0.77
90	7.23	4.1	0.13	8.90E-04	2.260E-03	0.75
90	6.73	5.4	0.15	1.37E-03	3.470E-03	0.93
90	6.23	4.1	0.13	9.40E-04	2.370E-03	0.77
90	5.73	4.4	0.14	1.02E-03	2.580E-03	0.80
90	5.23	5.3	0.16	1.06E-03	2.690E-03	0.82
90	4.73	5.0	0.15	7.30E-04	1.850E-03	0.68
90	4.23	4.2	0.14	6.60E-04	1.660E-03	0.64
90	3.73	3.9	0.14	6.00E-04	1.520E-03	0.61
90	3.43	4.2	0.13	5.30E-04	1.350E-03	0.58
90	3.13	4.5	0.14	4.70E-04	1.180E-03	0.54
90	2.83	4.1		2.60E-04	6.700E-04	0.41
84	11.23	2.9	0.10	6.20E-04	1.290E-03	0.66
84	10.23	2.9	0.10	6.30E-04	1.310E-03	0.66
84	9.23	3.5	0.11	8.30E-04	1.720E-03	0.76
84	8.73	3.2	0.10	7.30E-04	1.510E-03	0.71
84	8.23	3.8	0.12	1.02E-03	2.100E-03	0.84
84	7.73	3.9	0.12	8.70E-04	1.800E-03	0.78
84	7.23	4.4	0.13	1.19E-03	2.460E-03	0.91
84	6.73	4.7	0.14	1.12E-03	2.320E-03	0.88
84	6.23	4.1	0.13	9.60E-04	1.980E-03	0.82
84	5.73	3.9	0.13	7.70E-04	1.590E-03	0.73
84	5.23	3.5	0.12	6.80E-04	1.400E-03	0.69
84	4.73	3.8	0.12	8.60E-04	1.780E-03	0.77
84	4.23	4.1	0.12	6.20E-04	1.290E-03	0.66
84	3.73	4.0	0.13	4.10E-04	8.400E-04	0.53
84	3.43	3.6	0.11	2.80E-04	5.800E-04	0.44
78.5	11.72	4.8	0.09	6.70E-04	6.800E-04	0.82
78.5	10.72	3.2	0.09	8.70E-04	8.800E-04	0.93
78.5	9.72	2.4	0.09	7.50E-04	7.600E-04	0.86
78.5	9.22	2.8	0.09	8.90E-04	9.000E-04	0.94
78.5	8.72	2.5	0.09	8.70E-04	8.700E-04	0.93
78.5	8.22	2.9	0.11	1.17E-03	1.180E-03	1.08
78.5	7.72	2.9	0.10	1.12E-03	1.130E-03	1.05
78.5	7.22	3.6	0.12	1.45E-03	1.460E-03	1.20
78.5	6.72	3.3	0.11	1.12E-03	1.130E-03	1.05
78.5	6.22	4.2	0.11	1.03E-03	1.040E-03	1.01
78.5	5.72	3.4	0.12	1.15E-03	1.160E-03	1.07
78.5	4.73	3.2	0.13	5.90E-04	5.900E-04	0.76
78.5	4.23	4.0	0.10	5.30E-04	5.300E-04	0.72
78.5	4.22	2.9	0.10	1.05E-03	1.070E-03	1.02
78.5	3.92	3.1	0.10	6.60E-04	6.700E-04	0.81
75	11.23	1.7	0.07	6.00E-04	3.100E-04	0.91
75	10.23	2.8	0.10	1.22E-03	6.300E-04	1.30
75	9.23	3.2	0.10	1.52E-03	7.900E-04	1.45
75	8.73	2.8	0.10	1.42E-03	7.400E-04	1.40
75	8.23	2.9	0.09	1.33E-03	6.900E-04	1.36
75	7.73	3.4	0.11	1.77E-03	9.200E-04	1.57
75	7.23	2.8	0.10	1.12E-03	5.800E-04	1.25
75	6.73	3.2	0.11	1.54E-03	8.000E-04	1.46
75	6.23	2.7	0.09	9.50E-04	4.900E-04	1.14
75	5.73	4.8	0.13	1.47E-03	7.700E-04	1.43
75	5.23	2.8	0.09	9.60E-04	5.000E-04	1.15
75	4.73	3.2	0.10	8.00E-04	4.100E-04	1.05
75	4.23	2.5	0.08	6.50E-04	3.400E-04	0.95
72.5	11.72	3.8	0.09	6.80E-04	9.100E-04	0.76
72.5	10.72	3.7	0.09	6.60E-04	8.900E-04	0.76
72.5	9.72	3.9	0.10	9.30E-04	1.250E-03	0.89
72.5	9.22	7.0	0.09	7.40E-04	9.900E-04	0.80
72.5	8.72	2.6	0.10	1.03E-03	1.380E-03	0.94
72.5	8.22	2.7	0.10	9.20E-04	1.230E-03	0.89
72.5	7.72	3.0	0.10	1.01E-03	1.360E-03	0.93
72.5	7.22	2.7	0.11	1.00E-03	1.350E-03	0.93
72.5	6.72	3.2	0.10	7.60E-04	1.020E-03	0.81
72.5	6.22	3.2	0.10	9.30E-04	1.240E-03	0.89

Table B1: Velocity Moments and Turbulence Parameters

x	z	TKE	Intensity	Eddy Visc.	Turb. Prod.	Mix. Length
72.5	5.72	3.4	0.10	5.90E-04	8.000E-04	0.72
72.5	5.22	3.5	0.11	7.90E-04	7.000E-04	0.92
72.5	4.23	3.0	0.11	1.90E-04	2.630E-03	0.23
72.5	3.73	3.2	0.11	9.00E-05	3.430E-03	0.12
72.5	3.23	3.0	0.11	1.10E-04	9.420E-03	0.11
72.5	2.93	3.3	0.21	1.90E-04	2.697E-02	0.13
69	11.23	1.9	0.08	6.30E-04	4.100E-04	0.88
69	10.23	2.9	0.10	1.03E-03	6.800E-04	1.13
69	9.23	2.8	0.10	1.01E-03	6.700E-04	1.12
69	8.73	2.8	0.10	1.13E-03	7.500E-04	1.18
69	8.23	2.8	0.10	1.23E-03	8.100E-04	1.23
69	7.73	2.9	0.10	1.04E-03	6.900E-04	1.13
69	7.23	3.3	0.11	1.29E-03	8.500E-04	1.26
69	6.73	2.3	0.09	8.70E-04	5.700E-04	1.03
69	6.23	2.8	0.10	9.00E-04	5.900E-04	1.05
69	5.73	2.7	0.10	7.90E-04	5.200E-04	0.99
69	5.23	2.5	0.09	7.00E-04	4.600E-04	0.93
69	4.73	3.0	0.10	8.00E-04	3.300E-04	1.12
69	4.23	2.9	0.09	1.10E-04	1.800E-03	0.16
69	3.73	4.4	0.14	9.00E-05	4.400E-03	0.11
69	3.23	5.8	0.16	1.40E-04	1.597E-02	0.11
69	2.73	5.7	0.19	1.60E-04	3.766E-02	0.10
69	2.23	9.3	0.36	2.20E-04	9.794E-02	0.10
69	1.73	11.0	0.84	1.80E-04	1.457E-01	0.08
69	1.23	8.2	2.55	9.00E-05	1.195E-01	0.05
66	11.23	3.4	0.11	1.18E-03	1.100E-03	1.11
66	10.23	2.9	0.10	9.50E-04	8.800E-04	0.99
66	9.23	3.1	0.10	1.05E-03	9.800E-04	1.04
66	8.73	3.3	0.11	9.50E-04	8.800E-04	0.99
66	8.23	3.0	0.10	9.20E-04	8.600E-04	0.97
66	7.73	3.6	0.12	1.38E-03	1.290E-03	1.20
66	7.23	3.3	0.11	1.00E-03	9.300E-04	1.02
66	6.73	3.2	0.11	9.80E-04	9.200E-04	1.01
66	6.23	3.2	0.11	9.70E-04	9.000E-04	1.00
66	5.73	3.0	0.10	8.00E-04	7.500E-04	0.91
66	5.23	3.3	0.10	3.70E-04	1.520E-03	0.43
66	4.73	3.7	0.11	3.10E-04	2.950E-03	0.32
66	4.23	4.0	0.12	2.20E-04	4.310E-03	0.22
66	3.73	4.4	0.13	2.20E-04	8.560E-03	0.19
66	3.23	6.4	0.17	2.70E-04	2.017E-02	0.18
66	2.73	8.5	0.25	3.50E-04	4.550E-02	0.18
66	2.23	9.7	0.31	3.40E-04	7.333E-02	0.15
66	1.73	15.1	0.75	3.80E-04	1.348E-01	0.14
66	1.23	13.6	1.08	2.60E-04	1.441E-01	0.11
66	0.73	12.9	1.65	1.90E-04	1.610E-01	0.08
63.5	11.72	1.6	0.07	4.00E-04	3.600E-04	0.65
63.5	10.72	2.5	0.09	7.00E-04	6.400E-04	0.86
63.5	9.72	3.0	0.11	1.15E-03	1.040E-03	1.10
63.5	9.22	2.6	0.10	8.50E-04	7.700E-04	0.95
63.5	8.72	2.7	0.10	9.10E-04	8.200E-04	0.98
63.5	8.22	2.9	0.11	9.90E-04	8.900E-04	1.02
63.5	7.72	2.4	0.10	7.20E-04	6.500E-04	0.87
63.5	7.22	2.8	0.11	9.20E-04	8.300E-04	0.98
63.5	6.72	2.1	0.08	5.30E-04	4.700E-04	0.74
63.5	6.22	3.1	0.11	1.03E-03	9.300E-04	1.04
63.5	5.72	2.8	0.10	6.90E-04	6.200E-04	0.85
63.5	5.22	3.4	0.11	2.70E-04	2.390E-03	0.30
63.5	4.72	2.7	0.09	1.30E-04	2.250E-03	0.18
63.5	4.22	4.1	0.13	2.00E-04	5.940E-03	0.19
63.5	3.92	4.7	0.15	2.30E-04	9.160E-03	0.19
63.5	3.62	5.4	0.16	2.80E-04	1.450E-02	0.20
63.5	3.32	7.1	0.21	3.40E-04	2.259E-02	0.20
63.5	2.72	10.1	0.30	4.00E-04	4.234E-02	0.20
63.5	2.22	13.4	0.48	5.00E-04	7.428E-02	0.20
63.5	1.72	12.4	0.63	3.70E-04	7.278E-02	0.16
63.5	1.22	9.8	0.44	2.30E-04	5.973E-02	0.12
60	11.23	2.2	0.09	4.70E-04	7.800E-04	0.60
60	10.23	2.3	0.09	5.20E-04	8.700E-04	0.63
60	9.23	3.3	0.12	7.60E-04	1.270E-03	0.77

Table B1: Velocity Moments and Turbulence Parameters

x	z	TKE	Intensity	Eddy Visc.	Turb. Prod.	Mix. Length
60	8.73	3.1	0.11	6.90E-04	1.160E-03	0.73
60	8.23	2.9	0.11	6.80E-04	1.150E-03	0.73
60	7.73	3.0	0.11	8.10E-04	1.370E-03	0.79
60	7.23	2.6	0.10	5.40E-04	9.100E-04	0.65
60	6.73	3.4	0.12	8.40E-04	1.400E-03	0.80
60	6.23	3.1	0.12	7.10E-04	1.190E-03	0.74
60	5.73	2.9	0.11	6.50E-04	1.090E-03	0.71
60	5.23	3.2	0.12	4.10E-04	1.910E-03	0.44
60	4.73	4.1	0.14	5.00E-04	4.100E-03	0.42
60	4.23	4.7	0.15	4.30E-04	6.270E-03	0.34
60	3.73	5.5	0.18	4.20E-04	1.037E-02	0.29
60	3.23	5.7	0.19	2.90E-04	1.169E-02	0.21
60	2.73	5.9	0.21	2.80E-04	1.784E-02	0.19
60	2.23	11.4	0.38	4.50E-04	4.533E-02	0.21
60	1.73	11.2	0.45	3.40E-04	5.082E-02	0.17
60	1.23	11.7	0.53	3.00E-04	6.583E-02	0.14
60	0.93	10.7	0.61	2.00E-04	5.602E-02	0.11
57.5	11.72	1.8	0.08	3.80E-04	5.200E-04	0.57
57.5	10.72	2.8	0.11	7.00E-04	9.500E-04	0.77
57.5	9.72	2.7	0.11	6.60E-04	9.100E-04	0.75
57.5	9.22	2.6	0.10	5.80E-04	7.900E-04	0.70
57.5	8.72	2.4	0.10	6.60E-04	9.100E-04	0.75
57.5	8.22	2.5	0.10	6.70E-04	9.200E-04	0.76
57.5	7.72	3.2	0.12	9.50E-04	1.300E-03	0.90
57.5	7.22	2.2	0.09	6.00E-04	8.200E-04	0.72
57.5	6.72	2.8	0.11	7.20E-04	9.800E-04	0.78
57.5	6.22	2.7	0.11	4.30E-04	1.250E-03	0.50
57.5	5.72	2.4	0.10	2.80E-04	1.650E-03	0.34
57.5	5.22	3.8	0.13	4.20E-04	4.360E-03	0.36
57.5	4.72	3.8	0.14	2.70E-04	4.520E-03	0.26
57.5	4.22	3.9	0.15	2.10E-04	5.110E-03	0.21
57.5	3.72	4.1	0.15	2.20E-04	7.300E-03	0.19
57.5	3.22	5.5	0.18	2.30E-04	1.023E-02	0.19
57.5	2.72	9.7	0.34	5.10E-04	2.833E-02	0.26
57.5	2.22	8.0	0.30	3.50E-04	2.294E-02	0.21
57.5	1.72	9.4	0.43	3.60E-04	2.729E-02	0.20
57.5	1.22	10.5	0.42	3.90E-04	3.320E-02	0.20
54.5	11.72	2.4	0.09	4.30E-04	9.400E-04	0.54
54.5	10.72	2.7	0.10	5.40E-04	1.170E-03	0.61
54.5	9.72	3.2	0.11	6.10E-04	1.320E-03	0.65
54.5	9.22	2.8	0.11	5.50E-04	1.190E-03	0.61
54.5	8.72	2.8	0.11	6.70E-04	1.450E-03	0.67
54.5	8.22	3.5	0.12	8.10E-04	1.750E-03	0.74
54.5	7.72	3.3	0.12	6.70E-04	1.440E-03	0.67
54.5	7.22	3.2	0.12	7.00E-04	1.520E-03	0.69
54.5	6.72	3.1	0.11	6.10E-04	1.310E-03	0.64
54.5	6.22	3.1	0.12	6.40E-04	1.380E-03	0.66
54.5	5.72	3.7	0.13	8.90E-04	1.930E-03	0.78
54.5	5.22	4.9	0.16	1.19E-03	2.570E-03	0.90
54.5	4.72	4.5	0.15	9.60E-04	2.070E-03	0.81
54.5	4.22	4.1	0.14	1.60E-04	8.160E-03	0.15
54.5	3.72	5.2	0.17	1.50E-04	2.072E-02	0.11
54.5	3.22	7.1	0.22	1.30E-04	4.264E-02	0.09
54.5	2.72	25.7	1.12	7.00E-05	4.767E-02	0.05
54.5	2.22	26.3	1.71	7.00E-05	8.322E-02	0.04
51	11.23	2.2	0.09	3.00E-04	1.390E-03	0.37
51	10.23	2.4	0.09	2.90E-04	1.350E-03	0.36
51	9.23	2.7	0.11	3.10E-04	1.470E-03	0.38
51	8.73	2.5	0.10	3.30E-04	1.570E-03	0.39
51	8.23	3.1	0.12	4.00E-04	1.880E-03	0.43
51	7.73	2.9	0.11	3.80E-04	1.780E-03	0.42
51	7.23	3.7	0.13	5.70E-04	2.700E-03	0.51
51	6.73	3.0	0.11	4.10E-04	1.940E-03	0.43
51	6.23	3.1	0.11	4.40E-04	2.060E-03	0.45
51	5.73	4.9	0.16	7.40E-04	3.500E-03	0.58
51	5.23	4.8	0.16	7.10E-04	3.370E-03	0.57
51	4.73	5.0	0.17	8.40E-04	3.950E-03	0.62
51	4.23	6.0	0.19	1.02E-03	4.810E-03	0.69
51	3.73	7.8	0.25	1.45E-03	6.840E-03	0.82

Table B1: Velocity Moments and Turbulence Parameters

x	z	TKE	Intensity	Eddy Visc.	Turb. Prod.	Mix. Length
51	3.23	6.4	0.20	7.10E-04	3.370E-03	0.57
51	2.73	7.9	0.26	1.46E-03	6.880E-03	0.82
51	2.23	6.1	0.23	8.30E-04	3.890E-03	0.62
51	1.93	6.7	0.22	7.00E-04	3.310E-03	0.57
51	1.63	6.4	0.24	8.00E-04	3.790E-03	0.61
48.5	11.72	7.0	0.08	2.70E-04	1.010E-03	0.38
48.5	10.72	6.8	0.08	3.20E-04	1.200E-03	0.41
48.5	9.72	7.4	0.11	4.90E-04	1.810E-03	0.51
48.5	9.22	2.0	0.11	4.60E-04	1.690E-03	0.49
48.5	8.72	2.1	0.11	4.80E-04	1.770E-03	0.50
48.5	8.22	3.1	0.11	5.00E-04	1.820E-03	0.51
48.5	7.72	2.9	0.10	4.40E-04	1.620E-03	0.48
48.5	7.22	2.8	0.13	5.80E-04	2.140E-03	0.55
48.5	6.72	3.0	0.12	4.70E-04	1.730E-03	0.49
48.5	6.22	2.7	0.12	5.30E-04	1.940E-03	0.52
48.5	5.72	3.5	0.12	4.40E-04	1.620E-03	0.48
48.5	5.22	3.2	0.16	9.50E-04	3.480E-03	0.70
48.5	4.72	3.3	0.18	1.09E-03	4.010E-03	0.75
48.5	4.22	3.1	0.17	8.00E-04	2.930E-03	0.64
48.5	3.72	4.7	0.19	9.20E-04	3.400E-03	0.69
48.5	2.73	5.8	0.21	1.19E-03	4.380E-03	0.79
48.5	2.23	4.8	0.21	9.90E-04	3.640E-03	0.72
48.5	1.73	5.3	0.23	6.80E-04	2.490E-03	0.59
45	11.23	2.6	0.10	5.10E-04	1.300E-03	0.57
45	10.23	2.4	0.10	4.30E-04	1.100E-03	0.52
45	9.23	2.5	0.10	4.60E-04	1.160E-03	0.54
45	8.73	2.7	0.11	5.60E-04	1.440E-03	0.60
45	8.23	2.6	0.10	5.60E-04	1.420E-03	0.59
45	7.73	3.1	0.12	6.70E-04	1.690E-03	0.65
45	7.23	3.6	0.14	7.70E-04	1.950E-03	0.69
45	6.73	3.9	0.14	8.50E-04	2.160E-03	0.73
45	6.23	3.1	0.12	6.40E-04	1.640E-03	0.64
45	5.73	4.1	0.15	8.80E-04	2.240E-03	0.74
45	5.23	4.3	0.15	9.10E-04	2.310E-03	0.75
45	4.73	4.0	0.15	6.60E-04	1.670E-03	0.64
45	4.23	5.9	0.20	1.23E-03	3.130E-03	0.88
45	3.73	3.4	0.13	6.30E-04	1.600E-03	0.63
45	3.23	6.3	0.21	1.40E-03	3.560E-03	0.94
45	2.73	4.8	0.18	7.40E-04	1.880E-03	0.68
45	2.23	4.8	0.18	7.50E-04	1.910E-03	0.69
42	11.23	2.6	0.10	3.70E-04	1.120E-03	0.46
42	10.23	2.2	0.09	2.50E-04	7.800E-04	0.38
42	9.23	3.1	0.11	5.70E-04	1.760E-03	0.57
42	8.73	3.3	0.11	6.40E-04	1.960E-03	0.60
42	7.73	2.7	0.10	4.90E-04	1.490E-03	0.53
42	7.23	3.7	0.13	6.50E-04	2.010E-03	0.61
42	6.73	5.1	0.16	1.24E-03	3.790E-03	0.84
42	6.23	4.2	0.14	8.10E-04	2.480E-03	0.68
42	5.73	4.3	0.14	8.30E-04	2.550E-03	0.69
42	5.23	4.8	0.16	9.00E-04	2.760E-03	0.72
42	4.23	4.1	0.14	7.20E-04	2.190E-03	0.64
42	2.73	4.8	0.17	7.20E-04	2.200E-03	0.64
42	2.43	5.2	0.18	6.30E-04	1.930E-03	0.60
39.5	11.72	1.9	0.08	3.00E-04	8.900E-04	0.41
39.5	10.72	2.4	0.09	3.60E-04	1.080E-03	0.45
39.5	9.72	2.6	0.10	4.30E-04	1.310E-03	0.50
39.5	9.22	2.4	0.09	4.10E-04	1.240E-03	0.49
39.5	8.72	3.3	0.12	6.40E-04	1.940E-03	0.61
39.5	8.22	3.1	0.11	5.40E-04	1.630E-03	0.56
39.5	7.72	3.9	0.13	7.30E-04	2.210E-03	0.65
39.5	7.22	3.6	0.12	7.30E-04	2.200E-03	0.65
39.5	6.72	2.9	0.11	5.30E-04	1.610E-03	0.55
39.5	6.22	4.6	0.15	8.30E-04	2.500E-03	0.69
39.5	5.72	4.6	0.15	9.30E-04	2.820E-03	0.73
39.5	5.22	4.7	0.15	9.70E-04	2.920E-03	0.75
39.5	4.72	4.4	0.15	8.80E-04	2.670E-03	0.71
39.5	4.22	5.2	0.17	9.80E-04	2.960E-03	0.75
39.5	3.72	4.2	0.15	6.40E-04	1.930E-03	0.61
39.5	3.22	4.1	0.15	4.40E-04	1.350E-03	0.51

Table B1: Velocity Moments and Turbulence Parameters

x	z	TKE	Intensity	Eddy Visc.	Turb. Prod.	Mix. Length
39.5	2.72	3.7	0.14	5.20E-04	1.570E-03	0.55
36	11.23	2.3	0.09	3.00E-04	8.500E-04	0.43
36	10.23	2.6	0.10	4.40E-04	1.220E-03	0.51
36	9.23	2.5	0.09	4.60E-04	1.280E-03	0.52
36	8.73	3.5	0.12	7.00E-04	1.950E-03	0.65
36	8.23	3.2	0.11	6.00E-04	1.670E-03	0.60
36	7.73	3.0	0.10	6.10E-04	1.700E-03	0.60
36	7.23	3.8	0.13	7.60E-04	2.120E-03	0.68
36	6.73	3.4	0.12	6.90E-04	1.920E-03	0.64
36	6.23	4.5	0.15	9.70E-04	2.720E-03	0.76
36	5.73	3.6	0.13	7.10E-04	1.980E-03	0.65
36	5.23	4.9	0.16	1.05E-03	2.930E-03	0.79
36	4.73	4.5	0.15	7.40E-04	2.060E-03	0.67
36	4.23	3.7	0.13	6.70E-04	1.870E-03	0.63
36	3.73	4.5	0.15	7.00E-04	1.960E-03	0.65
36	3.23	4.0	0.14	5.40E-04	1.510E-03	0.57
36	2.73	4.4	0.15	4.40E-04	1.230E-03	0.51
33.5	11.72	2.4	0.10	5.50E-04	9.100E-04	0.66
33.5	10.72	2.2	0.09	5.00E-04	8.400E-04	0.63
33.5	9.72	2.4	0.10	5.40E-04	8.900E-04	0.65
33.5	9.22	2.5	0.10	6.20E-04	1.030E-03	0.70
33.5	8.72	2.3	0.09	5.50E-04	9.000E-04	0.65
33.5	8.22	3.2	0.12	8.60E-04	1.430E-03	0.82
33.5	7.72	3.4	0.12	9.20E-04	1.530E-03	0.85
33.5	7.22	3.9	0.14	1.06E-03	1.750E-03	0.91
33.5	6.72	2.8	0.11	7.10E-04	1.180E-03	0.74
33.5	6.22	3.3	0.12	9.30E-04	1.540E-03	0.85
33.5	5.72	3.5	0.12	1.03E-03	1.700E-03	0.89
33.5	5.22	3.5	0.13	6.90E-04	1.150E-03	0.73
33.5	4.72	4.0	0.14	9.20E-04	1.520E-03	0.85
33.5	4.22	3.9	0.14	8.60E-04	1.420E-03	0.82
33.5	3.72	4.4	0.14	7.10E-04	1.180E-03	0.75
33.5	3.22	3.4	0.12	6.20E-04	1.030E-03	0.70
30.5	11.72	4.7	0.08	4.70E-04	9.800E-04	0.57
30.5	10.72	3.9	0.07	3.00E-04	6.200E-04	0.46
30.5	9.72	2.1	0.10	6.90E-04	1.420E-03	0.69
30.5	9.22	1.8	0.10	7.30E-04	1.510E-03	0.71
30.5	8.72	2.8	0.10	7.40E-04	1.540E-03	0.72
30.5	8.22	3.1	0.10	5.70E-04	1.180E-03	0.63
30.5	7.72	3.1	0.12	8.40E-04	1.740E-03	0.76
30.5	7.22	2.8	0.12	9.90E-04	2.060E-03	0.83
30.5	6.72	3.6	0.12	9.00E-04	1.870E-03	0.79
30.5	6.22	3.7	0.12	8.40E-04	1.750E-03	0.77
30.5	5.72	3.7	0.13	8.60E-04	1.780E-03	0.77
30.5	5.22	3.6	0.13	6.90E-04	1.430E-03	0.69
30.5	4.72	3.8	0.12	5.20E-04	1.070E-03	0.60
30.5	4.22	3.6	0.14	6.80E-04	1.410E-03	0.69
30.5	3.23	3.3	0.12	5.20E-04	1.090E-03	0.60
30.5	2.73	6.0		4.30E-04	6.800E-04	0.58
27	11.23	2.0	0.08	6.60E-04	1.050E-03	0.72
27	10.23	2.8	0.10	8.70E-04	1.390E-03	0.83
27	9.23	3.0	0.11	7.30E-04	1.170E-03	0.76
27	8.73	2.7	0.10	4.80E-04	7.700E-04	0.62
27	8.23	2.2	0.09	1.14E-03	1.820E-03	0.95
27	7.73	4.1	0.14	1.12E-03	1.790E-03	0.94
27	7.23	3.8	0.13	6.90E-04	1.100E-03	0.74
27	6.73	2.9	0.10	1.05E-03	1.670E-03	0.91
27	6.23	3.8	0.13	8.30E-04	1.320E-03	0.81
27	5.73	3.7	0.13	9.50E-04	1.500E-03	0.87
27	5.23	4.4	0.14	6.60E-04	1.040E-03	0.72
27	4.73	3.1	0.11	5.70E-04	9.000E-04	0.67
27	4.23	3.0	0.12	4.70E-04	7.500E-04	0.61
27	3.73	3.2	0.11	4.80E-04	7.600E-04	0.62
27	3.43	3.2	0.12			
24.5	11.72	4.0	0.08	4.50E-04	8.200E-04	0.57
24.5	10.72	3.9	0.09	5.50E-04	1.020E-03	0.64
24.5	9.72	2.2	0.08	4.60E-04	8.400E-04	0.58
24.5	9.22	2.4	0.11	8.50E-04	1.550E-03	0.79
24.5	8.72	2.2	0.10	6.90E-04	1.270E-03	0.72

Table B1: Velocity Moments and Turbulence Parameters

x	z	TKE	Intensity	Eddy Visc.	Turb. Prod.	Mix. Length
24.5	8.22	3.2	0.09	6.60E-04	1.200E-03	0.70
24.5	7.72	2.9	0.11	8.20E-04	1.510E-03	0.78
24.5	7.22	2.6	0.10	7.30E-04	1.340E-03	0.73
24.5	6.72	3.3	0.11	8.10E-04	1.490E-03	0.77
24.5	6.22	2.9	0.11	6.90E-04	1.270E-03	0.71
24.5	5.72	3.4	0.12	8.40E-04	1.540E-03	0.79
24.5	5.22	3.1	0.12	5.90E-04	1.090E-03	0.66
24.5	4.23	3.5	0.12	4.30E-04	8.000E-04	0.57
24.5	3.73	3.6	0.12	5.60E-04	1.020E-03	0.64
24.5	3.72	3.3	0.11	5.70E-04	1.040E-03	0.65
21	11.23	2.6	0.09	8.70E-04	8.200E-04	0.94
21	10.23	2.2	0.08	6.30E-04	6.000E-04	0.81
21	9.23	2.5	0.09	7.80E-04	7.400E-04	0.90
21	8.73	3.4	0.11	1.32E-03	1.240E-03	1.17
21	8.23	2.7	0.10	9.40E-04	8.900E-04	0.99
21	7.73	2.7	0.09	7.90E-04	7.400E-04	0.90
21	7.23	3.0	0.10	1.04E-03	9.800E-04	1.03
21	6.73	3.7	0.12	1.31E-03	1.230E-03	1.16
21	6.23	3.5	0.11	1.21E-03	1.140E-03	1.12
21	5.73	3.5	0.12	9.40E-04	8.900E-04	0.99
21	5.23	2.9	0.10	8.60E-04	8.100E-04	0.94
21	4.73	3.0	0.11	7.70E-04	7.300E-04	0.89
21	4.23	2.9	0.10	6.60E-04	6.300E-04	0.83
21	3.73	2.9	0.10	4.30E-04	4.000E-04	0.66
21	3.43	2.6				
21	3.13	1.7				
18	11.23	2.1	0.08	5.40E-04	5.500E-04	0.73
18	10.23	2.7	0.09	9.30E-04	9.500E-04	0.96
18	9.23	3.0	0.10	1.05E-03	1.070E-03	1.02
18	8.73	3.2	0.10	1.08E-03	1.100E-03	1.04
18	8.23	3.0	0.10	1.01E-03	1.030E-03	1.00
18	7.73	3.0	0.10	1.11E-03	1.120E-03	1.05
18	7.23	3.3	0.11	1.12E-03	1.140E-03	1.06
18	6.73	3.1	0.10	1.00E-03	1.020E-03	1.00
18	6.23	3.5	0.11	9.80E-04	1.000E-03	0.99
18	5.73	3.1	0.10	9.50E-04	9.700E-04	0.97
18	5.23	3.3	0.11	9.80E-04	1.000E-03	0.99
18	4.73	3.5	0.11	8.60E-04	8.700E-04	0.92
18	4.23	3.1	0.10	5.90E-04	6.000E-04	0.76
18	3.73	3.0				
18	3.23	1.7				
15.5	11.72	1.7	0.07	4.70E-04	3.500E-04	0.74
15.5	10.72	2.5	0.09	1.05E-03	7.800E-04	1.10
15.5	9.72	2.6	0.09	9.60E-04	7.200E-04	1.06
15.5	9.22	2.4	0.08	8.70E-04	6.500E-04	1.00
15.5	8.72	1.9	0.07	6.50E-04	4.900E-04	0.87
15.5	8.22	3.4	0.11	1.28E-03	9.600E-04	1.22
15.5	7.72	2.8	0.10	1.08E-03	8.100E-04	1.12
15.5	7.22	2.4	0.09	9.00E-04	6.700E-04	1.02
15.5	6.72	2.9	0.10	9.90E-04	7.400E-04	1.07
15.5	6.22	3.1	0.11	8.80E-04	6.500E-04	1.01
15.5	5.72	2.6	0.09	7.50E-04	5.600E-04	0.93
15.5	5.22	2.8	0.09	8.10E-04	6.000E-04	0.97
15.5	4.72	2.6	0.09	7.30E-04	5.400E-04	0.92
15.5	4.22	2.6	0.09	6.00E-04	4.500E-04	0.83
15.5	3.92	2.6				
12	11.23	2.3	0.09	5.80E-04	7.500E-04	0.71
12	10.23	2.9	0.10	9.70E-04	1.250E-03	0.92
12	9.23	2.3	0.08	5.60E-04	7.200E-04	0.70
12	8.73	3.1	0.11	9.60E-04	1.250E-03	0.92
12	8.23	2.6	0.10	7.50E-04	9.700E-04	0.81
12	7.73	2.4	0.09	7.20E-04	9.300E-04	0.79
12	7.23	2.8	0.10	8.90E-04	1.150E-03	0.88
12	6.73	3.0	0.10	8.40E-04	1.090E-03	0.86
12	6.23	2.8	0.10	7.90E-04	1.030E-03	0.84
12	5.73	3.2	0.11	7.00E-04	9.000E-04	0.78
12	5.23	3.8	0.12	6.20E-04	8.100E-04	0.74
12	4.73	2.7	0.10	6.10E-04	7.900E-04	0.73
12	4.23	2.8	0.10	5.70E-04	7.400E-04	0.71

Table B1: Velocity Moments and Turbulence Parameters

x	z	TKE	Intensity	Eddy Visc.	Turb. Prod.	Mix. Length
12	3.73	2.8	0.09	4.50E-04	5.900E-04	0.63
12	3.23	2.9	0.11	6.60E-04	8.500E-04	0.76
12	2.73	5.7				
12	2.43	5.2				
12	2.13	2.0				
9.5	11.72	2.2	0.08	1.21E-03	3.600E-04	1.48
9.5	10.72	2.0	0.08	1.07E-03	3.200E-04	1.40
9.5	9.72	2.3	0.08	1.21E-03	3.700E-04	1.48
9.5	9.22	2.7	0.10	1.71E-03	5.100E-04	1.76
9.5	8.72	2.3	0.09	1.23E-03	3.700E-04	1.50
9.5	8.22	2.2	0.08	1.11E-03	3.400E-04	1.42
9.5	7.72	2.7	0.10	1.62E-03	4.900E-04	1.72
9.5	7.22	3.1	0.10	1.84E-03	5.600E-04	1.83
9.5	6.72	2.9	0.10	1.59E-03	4.800E-04	1.70
9.5	6.22	2.7	0.09	1.62E-03	4.900E-04	1.72
9.5	5.72	2.4	0.08	1.38E-03	4.200E-04	1.58
9.5	5.22	2.5	0.09	7.90E-04	5.900E-04	0.95
9.5	4.72	2.4	0.09	1.90E-04	1.400E-03	0.27
9.5	4.22	2.8	0.09	1.00E-04	3.090E-03	0.14
9.5	3.92	3.0	0.10	6.00E-05	3.610E-03	0.09
9.5	3.62	3.6	0.11	9.00E-05	9.000E-03	0.09
9.5	3.22	6.7	0.20	2.10E-04	4.391E-02	0.12
9.5	2.72	8.4	0.28	1.90E-04	8.157E-02	0.10
9.5	2.22	10.2	0.38	1.70E-04	1.356E-01	0.08
9.5	1.72	8.9	1.42	1.00E-04	1.385E-01	0.05
6.5	11.72	16.4	0.07	6.10E-04	4.000E-04	0.86
6.5	10.72	14.2	0.08	1.00E-03	6.500E-04	1.11
6.5	9.72	2.0	0.09	1.03E-03	6.700E-04	1.13
6.5	9.22	2.3	0.10	1.17E-03	7.700E-04	1.20
6.5	8.72	2.6	0.10	1.13E-03	7.400E-04	1.18
6.5	8.22	2.8	0.10	1.16E-03	7.600E-04	1.20
6.5	7.72	3.0	0.09	1.06E-03	7.000E-04	1.14
6.5	7.22	2.9	0.09	1.11E-03	7.300E-04	1.17
6.5	6.72	2.6	0.10	1.00E-03	6.500E-04	1.11
6.5	6.22	2.6	0.09	9.70E-04	6.300E-04	1.09
6.5	5.72	2.9	0.10	9.30E-04	6.100E-04	1.07
6.5	5.22	2.6	0.10	7.80E-04	5.100E-04	0.98
6.5	4.72	3.0	0.10	1.80E-04	2.830E-03	0.21
6.5	4.22	3.1	0.10	1.40E-04	4.470E-03	0.16
6.5	3.72	3.2	0.13	1.80E-04	1.021E-02	0.15
6.5	3.22	3.3	0.21	3.50E-04	3.366E-02	0.19
6.5	2.72	4.5	0.26	3.00E-04	4.645E-02	0.16
6.5	2.22	7.9	0.42	3.40E-04	8.004E-02	0.15
6.5	1.23	8.5	1.12	2.40E-04	1.190E-01	0.10
6.5	0.73	11.7	1.54	1.60E-04	1.125E-01	0.08
6.5	0.72	11.2	5.65	2.70E-04	1.882E-01	0.10
0.5	11.72	11.6	0.09	7.40E-04	6.000E-04	0.90
0.5	10.72	13.9	0.10	9.30E-04	7.800E-04	1.01
0.5	9.72	2.2	0.09	6.50E-04	4.400E-04	0.89
0.5	9.22	2.6	0.11	1.14E-03	6.800E-04	1.21
0.5	8.72	2.3	0.10	9.80E-04	5.500E-04	1.15
0.5	8.22	2.8	0.09	8.30E-04	4.700E-04	1.05
0.5	7.72	2.5	0.10	1.06E-03	6.900E-04	1.15
0.5	7.22	2.2	0.11	8.60E-04	7.300E-04	0.97
0.5	6.72	2.6	0.10	6.60E-04	8.200E-04	0.77
0.5	6.22	2.8	0.11	4.80E-04	9.700E-04	0.59
0.5	5.72	2.6	0.10	4.10E-04	1.360E-03	0.48
0.5	5.22	2.7	0.11	3.40E-04	1.870E-03	0.38
0.5	4.72	2.7	0.13	3.60E-04	3.260E-03	0.35
0.5	4.22	3.0	0.13	2.80E-04	4.060E-03	0.27
0.5	3.72	3.6	0.14	2.80E-04	6.440E-03	0.24
0.5	3.22	3.8	0.23	4.30E-04	1.555E-02	0.27
0.5	2.92	4.2	0.27	5.50E-04	2.533E-02	0.28
0.5	2.62	7.3	0.26	4.20E-04	2.501E-02	0.23
0.5	1.73	9.0	0.38	3.80E-04	4.436E-02	0.19
0.5	1.23	8.5	0.48	3.90E-04	6.416E-02	0.17

Appendix C: Velocity Profiles

Figure C1: Velocity profiles collected over the bedform. U, V and W refer to the streamwise, cross-stream and vertical velocity directions, respectively. Numbers in the left-hand panels of the plots (i.e. 90, 84, 78.5, etc.) are streamwise distances along working section (see Figure 2).

Figure C1: Velocity Profiles

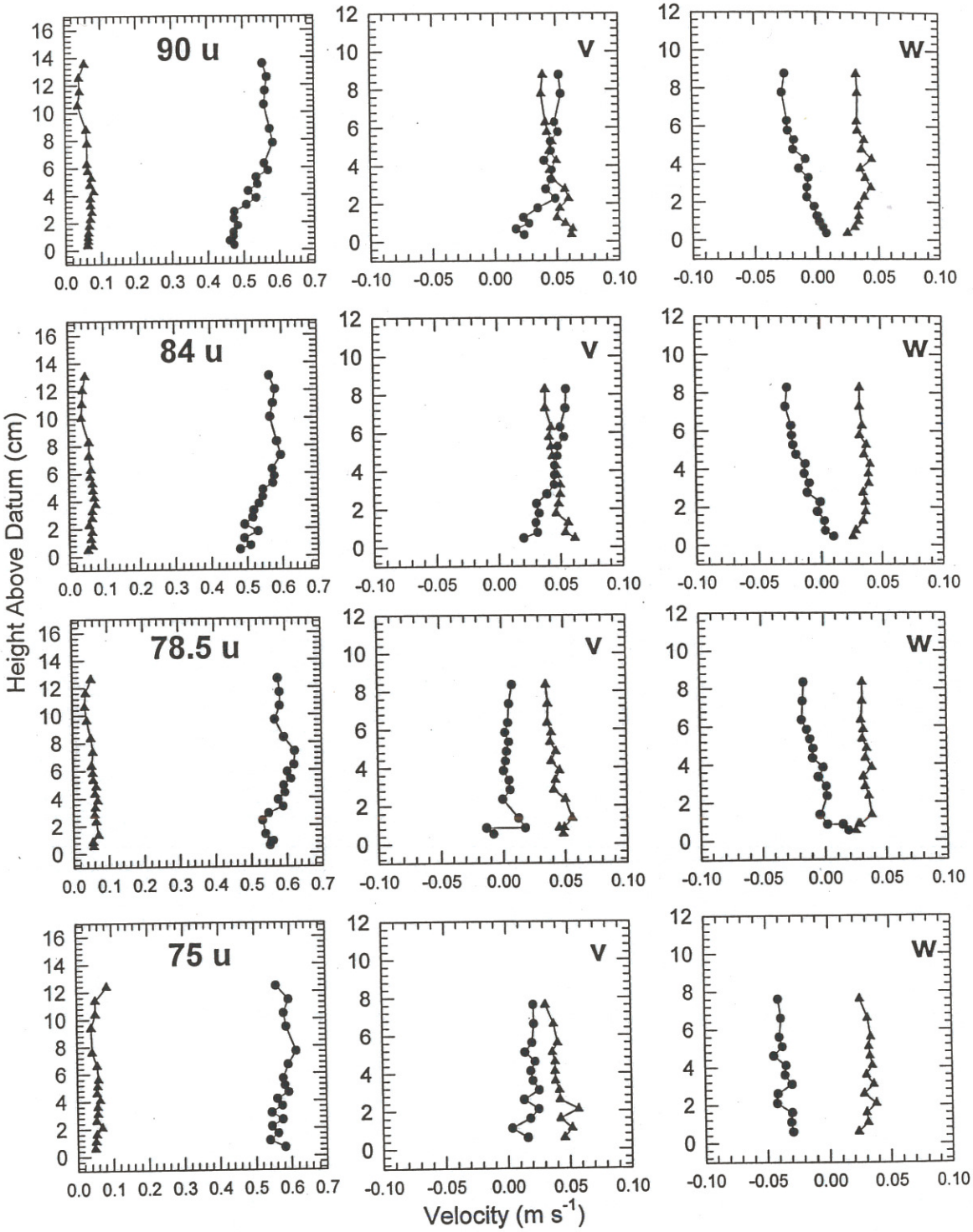


Figure C1: Velocity Profiles

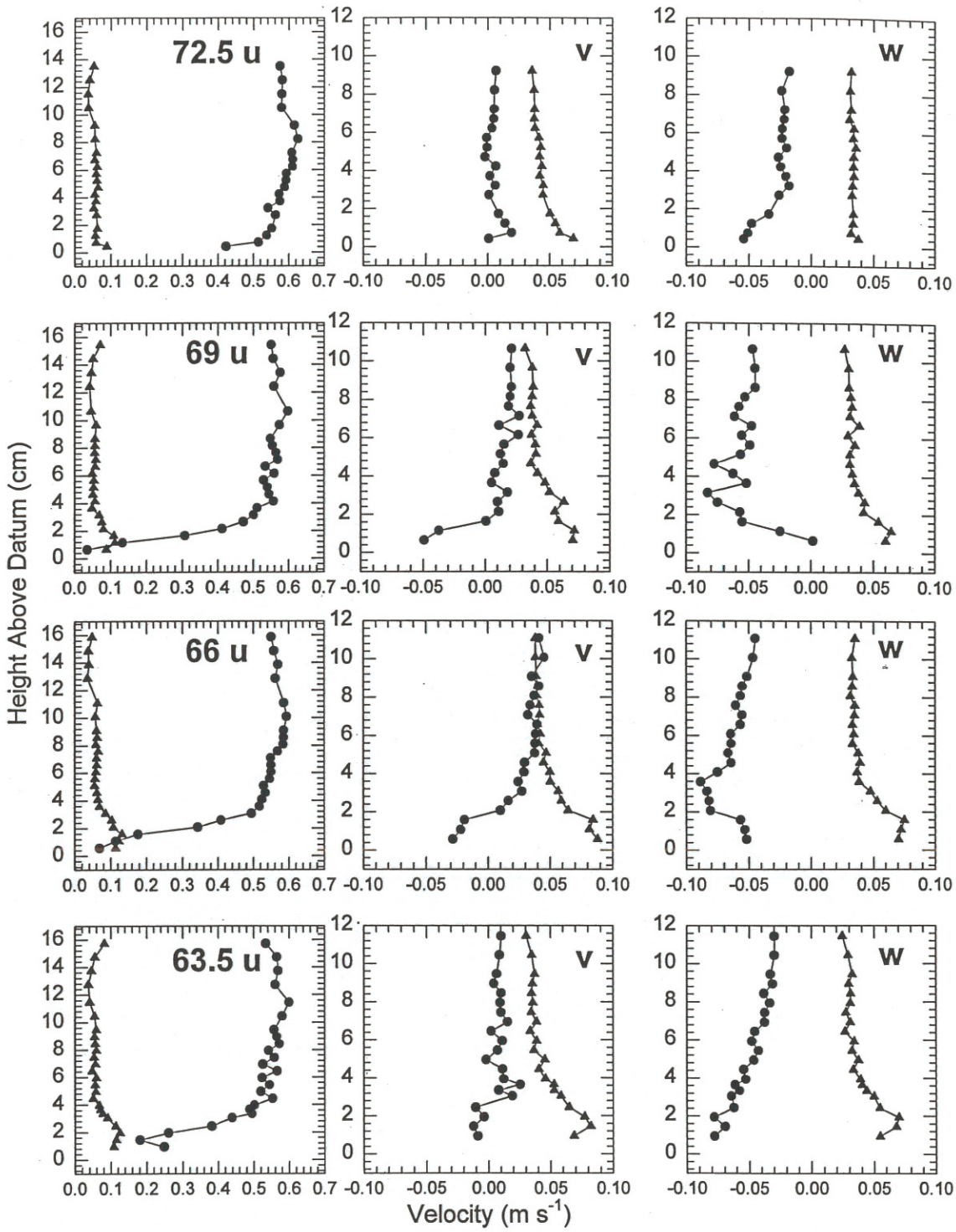


Figure C1: Velocity Profiles

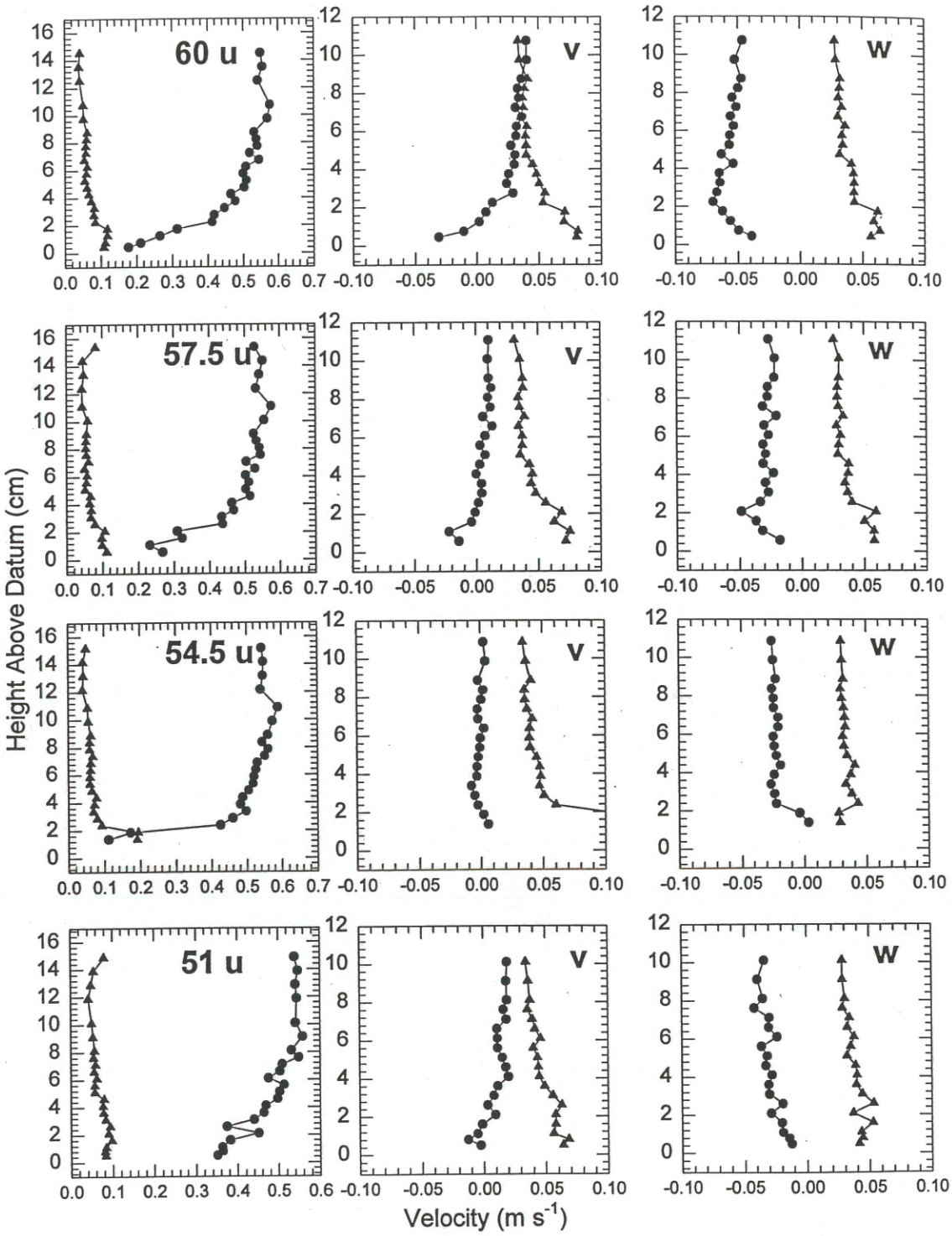


Figure C1: Velocity Profiles

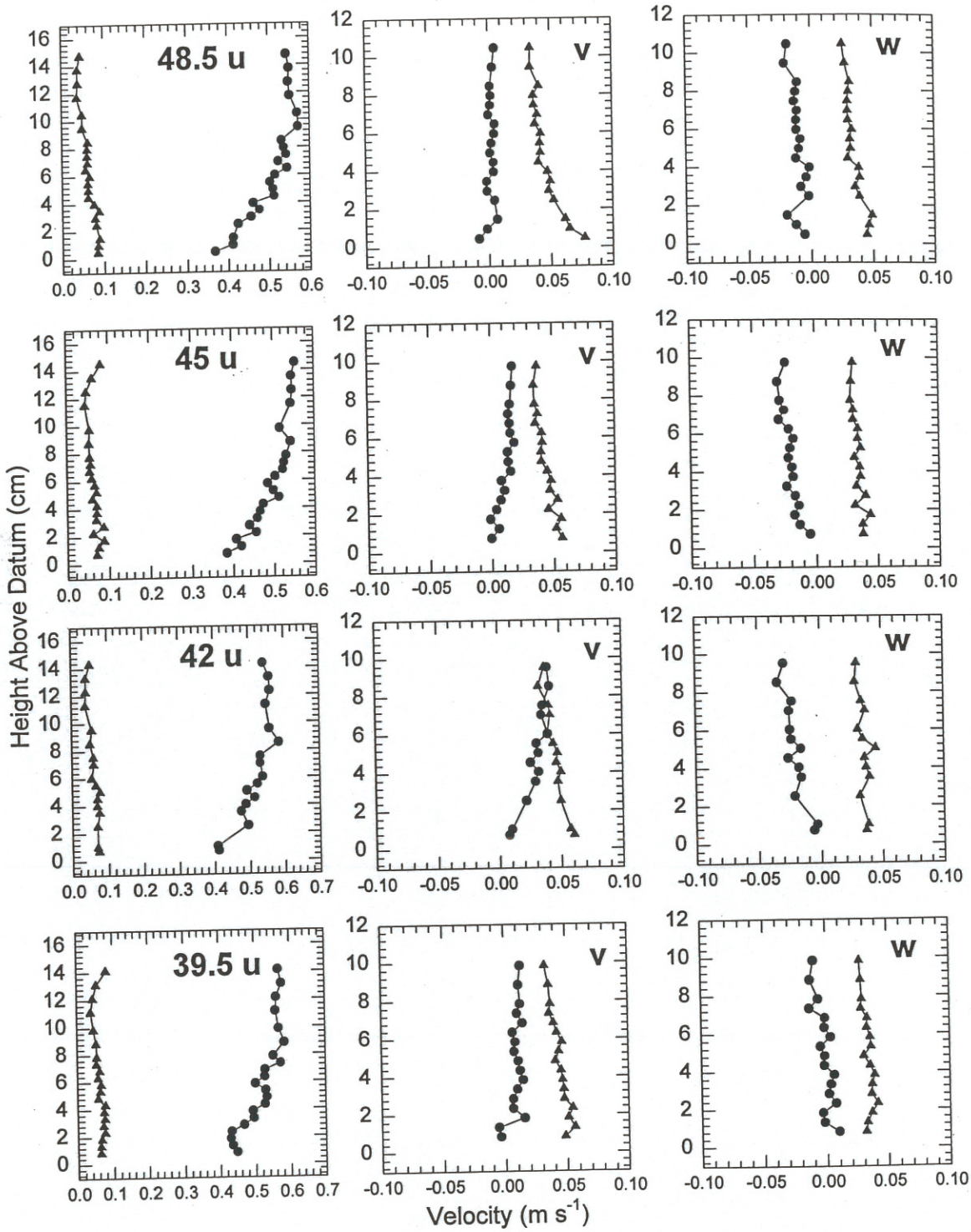


Figure C1: Velocity Profiles

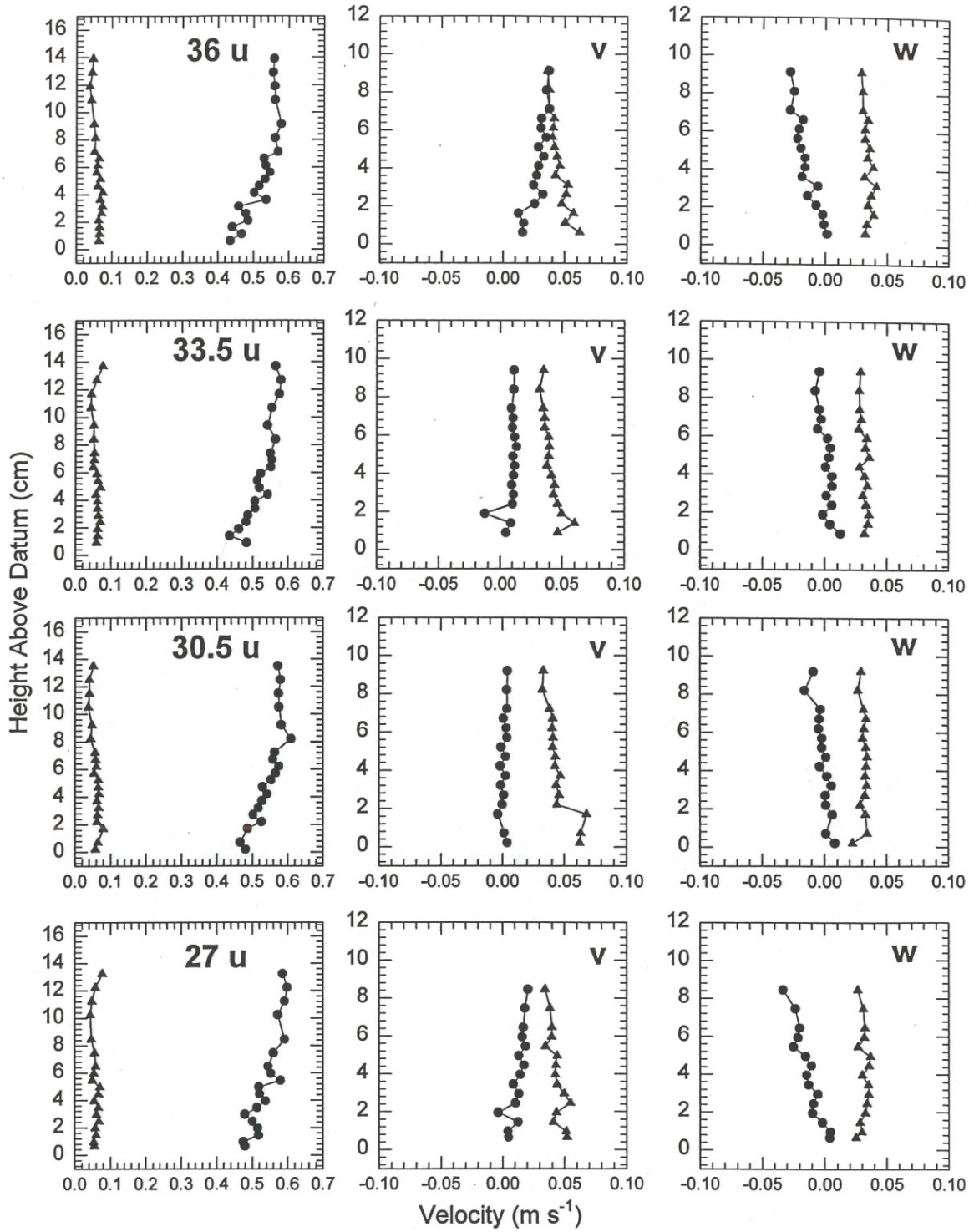


Figure C1: Velocity Profiles

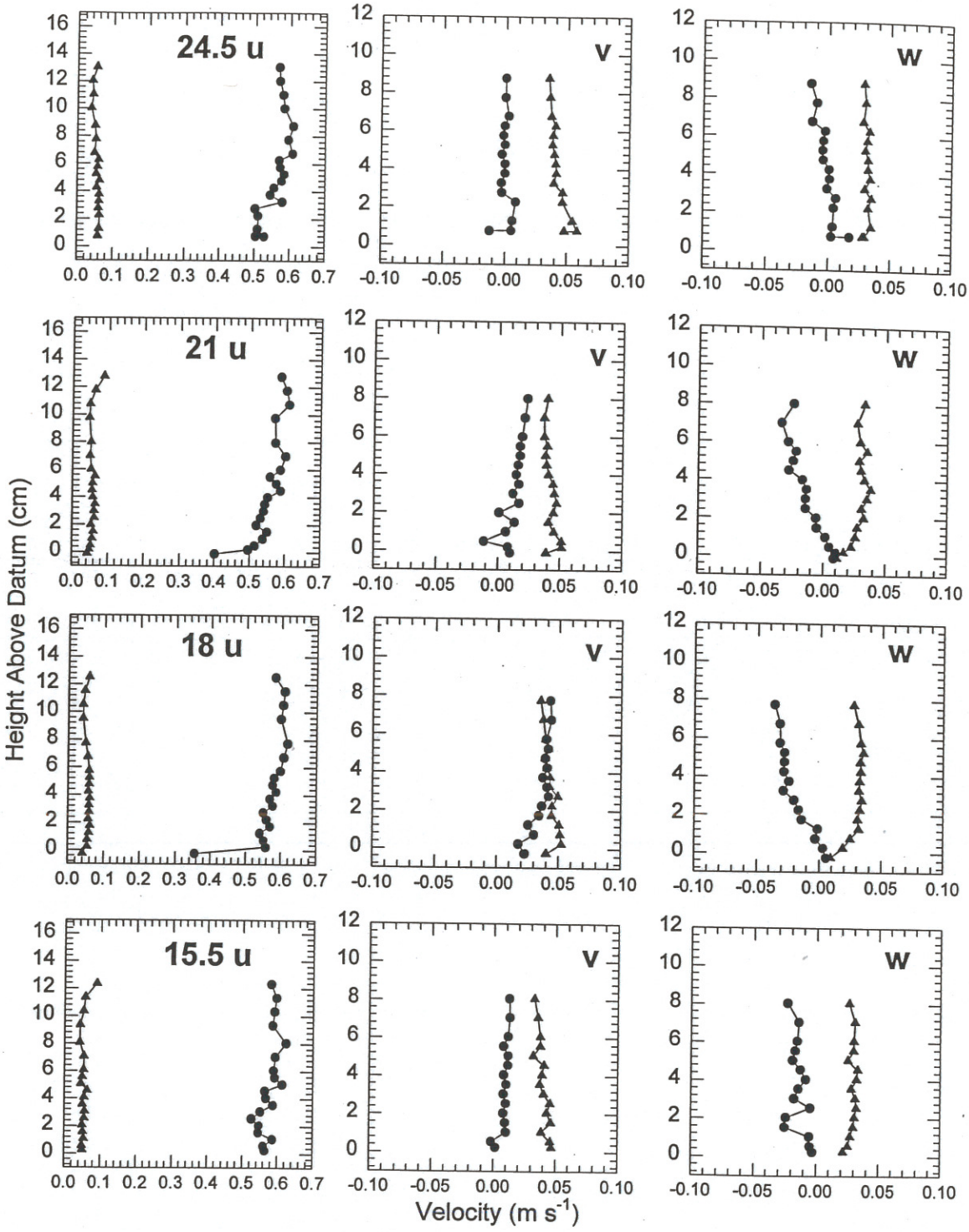
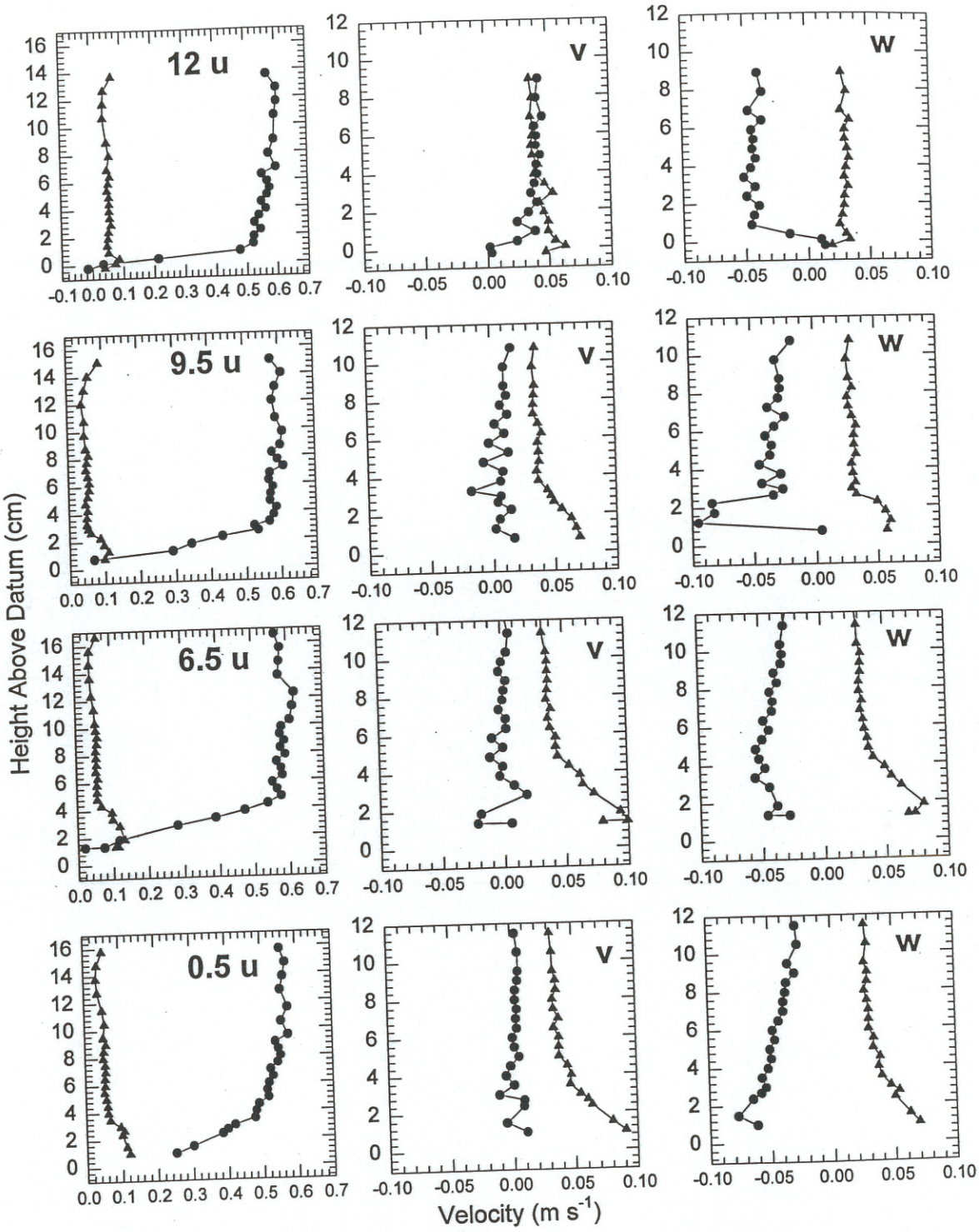


Figure C1: Velocity Profiles



Appendix D: Concentration Data

Figure D1: Calibration curves for the OBS Probes used in the experiment (OBS probe 5 was not deployed).

Table D1: Concentration data obtained using the OBS Probes. x is the streamwise distance through the working section and z is the height above the datum in the dune trough (see Figure 2). The 'Raw' data (calibrated) is the OBS output calibrated using the equations shown in Figure D1. The 'Cor' data (corrected) is derived by adjusting the 'Raw' data profiles so that the upper parts of the profiles (i.e. z=16, 15, 14, 13) match the lower part of the profiles (i.e. z=12 to bed) in magnitude. To accomplish this the difference in concentration between files at z=12 and z=13 was added to files collected at z=13, 14, 15, and 16. The 'Norm' (normalized) data is the 'Cor' data divided by the profile mean. The 'Final' data is the 'Norm' data multiplied by the spatially averaged concentration of 149.9 mg l^{-1}.

Figure D1: OBS Calibration Curves

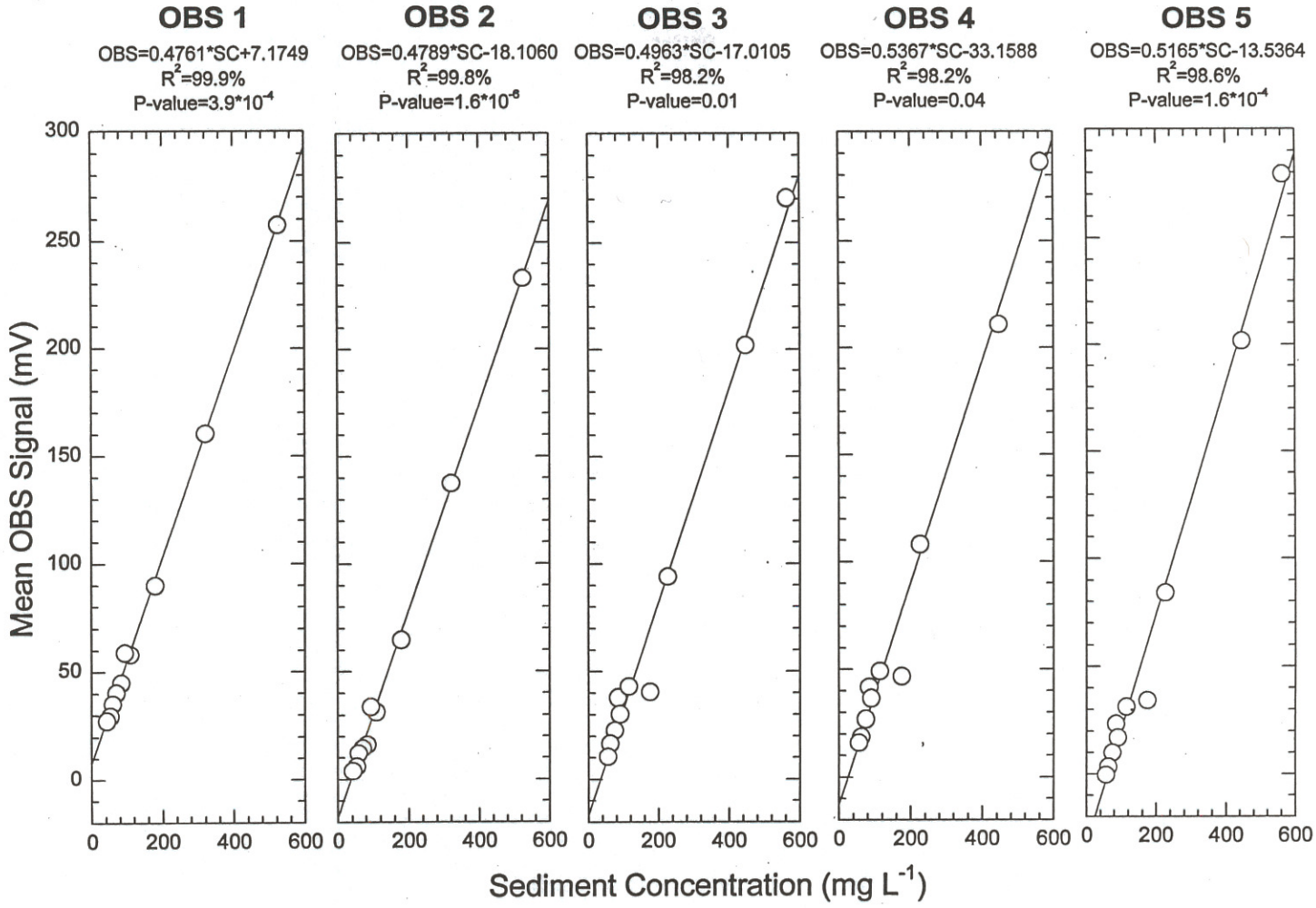


Table D1: Concentration Data

x	z	Raw C1	Cor C1	Norm C1	Final C1
90	16	54.759	139.852	0.642	91.144
90	15	58.612	143.706	0.660	93.655
90	14	63.706	148.799	0.683	96.975
90	13	76.185	161.279	0.741	105.108
90	12	161.279	161.279	0.741	105.108
90	11	175.788	175.788	0.807	114.564
90	10	180.958	180.958	0.831	117.933
90	9.5	176.400	176.400	0.810	114.963
90	9	185.357	185.357	0.851	120.800
90	8.5	193.807	193.807	0.890	126.307
90	8	198.678	198.678	0.912	129.482
90	7.5	226.648	226.648	1.041	147.710
90	7	215.603	215.603	0.990	140.512
90	6.5	220.913	220.913	1.015	143.972
90	6	230.232	230.232	1.057	150.046
90	5.5	235.569	235.569	1.082	153.524
90	5	245.095	245.095	1.126	159.732
90	4.5	260.650	260.650	1.197	169.869
90	4	274.301	274.301	1.260	178.767
90	3.9	290.301	290.301	1.333	189.193
90	3.6	303.468	303.468	1.394	197.775
90	3.3	309.709	309.709	1.422	201.843
90	3	329.467	329.467	1.513	214.719
84	16	43.937	170.405	0.797	113.125
84	15	48.817	175.285	0.820	116.365
84	14	45.854	172.322	0.806	114.398
84	13	46.660	173.128	0.810	114.933
84	12	173.128	173.128	0.810	114.933
84	11	187.464	187.464	0.877	124.450
84	10	203.776	203.776	0.953	135.278
84	9.5	198.869	198.869	0.930	132.021
84	9	194.004	194.004	0.908	128.791
84	8.5	191.077	191.077	0.894	126.848
84	8	203.355	203.355	0.951	134.999
84	7.5	210.574	210.574	0.985	139.791
84	7	205.446	205.446	0.961	136.387
84	6.5	211.137	211.137	0.988	140.165
84	6	234.670	234.670	1.098	155.788
84	5.5	226.961	226.961	1.062	150.670
84	5	225.721	225.721	1.056	149.847
84	4.5	236.931	236.931	1.108	157.289
84	4	274.720	274.720	1.285	182.375
84	3.7	272.569	272.569	1.275	180.948
84	3.4	260.008	260.008	1.216	172.609
84	3.1	300.954	300.954	1.408	199.791
75	16	65.838	65.838	0.392	55.631
75	15	80.399	80.399	0.479	67.935
75	14	80.771	80.771	0.481	68.250
75	13	130.926	130.926	0.780	110.630
75	12	128.875	128.875	0.767	108.897
75	11	143.437	143.437	0.854	121.202
75	10	132.937	132.937	0.792	112.329
75	9.5	147.170	147.170	0.876	124.356
75	9	146.133	146.133	0.870	123.479
75	8.5	158.275	158.275	0.942	133.740
75	8	149.863	149.863	0.892	126.632
75	7.5	156.318	156.318	0.931	132.086
75	7	173.209	173.209	1.031	146.358
75	6.5	197.207	197.207	1.174	166.636
75	6	217.727	217.727	1.297	183.975
75	5.5	231.977	231.977	1.381	196.016
75	5	202.940	202.940	1.208	171.480
75	4.5	198.929	198.929	1.185	168.091
75	4.2	214.722	214.722	1.279	181.436
75	3.9	219.139	219.139	1.305	185.169
75	3.6	254.978	254.978	1.518	215.451
75	3	262.749	262.749	1.565	222.018
75	2.5				
69	16	71.048	71.048	0.461	65.397
69	15	75.686	75.686	0.491	69.665

x	z	Raw C2	Cor C2	Norm C2	Final C2
78.5	16	53.099	135.730	0.729	103.439
78.5	15	57.006	139.637	0.750	106.416
78.5	14	61.718	144.349	0.775	110.007
78.5	13	77.739	160.370	0.861	122.217
78.5	12	160.370	160.370	0.861	122.217
78.5	11	167.649	167.649	0.900	127.764
78.5	10	172.390	172.390	0.926	131.377
78.5	9.5	172.377	172.377	0.926	131.367
78.5	9	173.010	173.010	0.929	131.849
78.5	8.5	188.658	188.658	1.013	143.775
78.5	8	186.463	186.463	1.001	142.101
78.5	7.5	220.917	220.917	1.186	168.359
78.5	7	208.646	208.646	1.121	159.007
78.5	6.5	217.075	217.075	1.166	165.430
78.5	6	235.022	235.022	1.262	179.108
78.5	5.5	234.669	234.669	1.260	178.839
78.5	5	248.040	248.040	1.332	189.029
78.5	4.5				
78.5	4				
78.5	3.9				
78.5	3.6				
78.5	3.3				
78.5	3				
72.5	16	52.081	179.338	0.768	109.008
72.5	15	49.817	177.074	0.759	107.631
72.5	14	48.116	175.373	0.751	106.598
72.5	13	47.419	174.676	0.748	106.174
72.5	12	174.676	174.676	0.748	106.174
72.5	11	187.024	187.024	0.801	113.680
72.5	10	200.848	200.848	0.860	122.082
72.5	9.5	199.531	199.531	0.855	121.282
72.5	9	205.856	205.856	0.882	125.126
72.5	8.5	199.549	199.549	0.855	121.293
72.5	8	206.758	206.758	0.886	125.675
72.5	7.5	222.128	222.128	0.951	135.017
72.5	7	230.198	230.198	0.986	139.922
72.5	6.5	259.175	259.175	1.110	157.535
72.5	6	279.697	279.697	1.198	170.010
72.5	5.5	296.594	296.594	1.270	180.280
72.5	5	382.903	382.903	1.640	232.741
72.5	4.5	450.737	450.737	1.931	273.973
72.5	4				
72.5	3.7				
72.5	3.4				
72.5	3.1				
63.5	16	72.265	72.265	0.436	61.880
63.5	15	77.044	77.044	0.465	65.973
63.5	14	77.543	77.543	0.468	66.400
63.5	13	131.216	131.216	0.792	112.361
63.5	12	128.372	128.372	0.775	109.925
63.5	11	137.043	137.043	0.827	117.350
63.5	10	126.699	126.699	0.765	108.492
63.5	9.5	141.179	141.179	0.852	120.891
63.5	9	152.578	152.578	0.921	130.653
63.5	8.5	154.818	154.818	0.934	132.571
63.5	8	145.323	145.323	0.877	124.440
63.5	7.5	164.949	164.949	0.995	141.246
63.5	7	176.973	176.973	1.068	151.542
63.5	6.5	191.230	191.230	1.154	163.751
63.5	6	207.686	207.686	1.253	177.842
63.5	5.5	219.606	219.606	1.325	188.049
63.5	5	203.285	203.285	1.227	174.073
63.5	4.5	191.446	191.446	1.155	163.935
63.5	4.2	201.470	201.470	1.216	172.519
63.5	3.9	201.162	201.162	1.214	172.256
63.5	3.6	213.748	213.748	1.290	183.033
63.5	3	243.467	243.467	1.469	208.481
63.5	2.5	252.288	252.288	1.522	216.035
57.5	16	69.502	69.502	0.450	63.893
57.5	15	71.604	71.604	0.464	65.826

Table D1: Concentration Data

x	z	Raw C1	Cor C1	Norm C1	Final C1
69	14	67.266	67.266	0.436	61.915
69	13	106.525	106.525	0.691	98.051
69	12	121.482	121.482	0.788	111.818
69	11	140.904	140.904	0.914	129.696
69	10	135.829	135.829	0.881	125.024
69	9.5	144.991	144.991	0.941	133.457
69	9	142.644	142.644	0.925	131.297
69	8.5	159.122	159.122	1.032	146.465
69	8	148.643	148.643	0.964	136.819
69	7.5	160.576	160.576	1.042	147.803
69	7	168.400	168.400	1.092	155.004
69	6.5	194.277	194.277	1.260	178.823
69	6	171.987	171.987	1.116	158.306
69	5.5	209.719	209.719	1.360	193.037
69	5	216.146	216.146	1.402	198.953
69	4.5	194.981	194.981	1.265	179.472
69	4	222.314	222.314	1.442	204.630
69	3.5	230.720	230.720	1.497	212.367
69	3				
69	2.5				
66	16	32.953	144.601	0.749	106.280
66	15	35.615	147.264	0.763	108.237
66	14	43.636	155.284	0.804	114.132
66	13	53.521	165.169	0.856	121.397
66	12	165.169	165.169	0.856	121.397
66	11	187.094	187.094	0.969	137.512
66	10	187.935	187.935	0.973	138.130
66	9.5	178.109	178.109	0.923	130.908
66	9	187.043	187.043	0.969	137.474
66	8.5	197.373	197.373	1.022	145.067
66	8	204.942	204.942	1.062	150.630
66	7.5	198.934	198.934	1.030	146.214
66	7	193.120	193.120	1.000	141.941
66	6.5	217.861	217.861	1.128	160.125
66	6	224.324	224.324	1.162	164.875
66	5.5	213.619	213.619	1.106	157.008
66	5	218.800	218.800	1.133	160.816
66	4.5	238.749	238.749	1.237	175.478
66	4	242.831	242.831	1.258	178.478
66	3.5				
66	3				
66	2.5				
66	2				
66	1.5				
60	15	33.092	115.746	0.746	105.916
60	14	49.284	131.938	0.851	120.733
60	13	53.951	136.605	0.881	125.003
60	12	136.605	136.605	0.881	125.003
60	11	140.272	140.272	0.905	128.359
60	10	140.137	140.137	0.904	128.235
60	9.5	149.006	149.006	0.961	136.351
60	9	141.946	141.946	0.915	129.890
60	8.5	145.386	145.386	0.938	133.039
60	8	145.219	145.219	0.936	132.886
60	7.5	153.479	153.479	0.990	140.444
60	7	159.956	159.956	1.032	146.371
60	6.5	157.652	157.652	1.017	144.263
60	6	181.174	181.174	1.168	165.787
60	5.5	188.947	188.947	1.218	172.900
60	5	206.642	206.642	1.333	189.092
60	4.5	213.469	213.469	1.377	195.339
60	4	219.498	219.498	1.415	200.856
60	3.5				
60	3				
60	2.5				
60	2				
51	16	66.883	66.883	0.394	55.961
51	15	78.383	78.383	0.462	65.584
51	14	89.315	89.315	0.527	74.730
51	13	124.521	124.521	0.734	104.188

x	z	Raw C2	Cor C2	Norm C2	Final C2
57.5	14	75.192	75.192	0.487	69.124
57.5	13	108.283	108.283	0.702	99.545
57.5	12	111.877	111.877	0.725	102.848
57.5	11	133.960	133.960	0.868	123.150
57.5	10	127.486	127.486	0.826	117.198
57.5	9.5	137.508	137.508	0.891	126.411
57.5	9	132.794	132.794	0.860	122.077
57.5	8.5	144.711	144.711	0.938	133.033
57.5	8	141.421	141.421	0.916	130.008
57.5	7.5	153.396	153.396	0.994	141.017
57.5	7	159.604	159.604	1.034	146.724
57.5	6.5	179.144	179.144	1.161	164.687
57.5	6	158.395	158.395	1.026	145.613
57.5	5.5	206.514	206.514	1.338	189.848
57.5	5	200.747	200.747	1.301	184.547
57.5	4.5	181.559	181.559	1.176	166.908
57.5	4	211.449	211.449	1.370	194.385
57.5	3.5	214.710	214.710	1.391	197.383
57.5	3	226.108	226.108	1.465	207.861
57.5	2.5	249.877	249.877	1.619	229.712
54.5	16	42.749	149.609	0.794	112.608
54.5	15	41.660	148.520	0.788	111.788
54.5	14	39.973	146.833	0.779	110.518
54.5	13	49.048	155.908	0.827	117.348
54.5	12	155.908	155.908	0.827	117.348
54.5	11	171.305	171.305	0.909	128.938
54.5	10	172.527	172.527	0.915	129.858
54.5	9.5	163.662	163.662	0.868	123.185
54.5	9	177.274	177.274	0.940	133.430
54.5	8.5	186.141	186.141	0.987	140.104
54.5	8	185.333	185.333	0.983	139.496
54.5	7.5	193.090	193.090	1.024	145.335
54.5	7	185.548	185.548	0.984	139.658
54.5	6.5	206.403	206.403	1.095	155.355
54.5	6	213.655	213.655	1.133	160.813
54.5	5.5	206.742	206.742	1.097	155.610
54.5	5	210.552	210.552	1.117	158.478
54.5	4.5	214.228	214.228	1.136	161.245
54.5	4	217.519	217.519	1.154	163.722
54.5	3.5	215.365	215.365	1.142	162.101
54.5	3	233.036	233.036	1.236	175.401
54.5	2.5	238.431	238.431	1.265	179.462
54.5	2				
54.5	1.5				
48.5	15	42.538	129.476	0.799	113.308
48.5	14	48.889	135.827	0.838	118.866
48.5	13	52.681	139.619	0.861	122.185
48.5	12	139.619	139.619	0.861	122.185
48.5	11	151.523	151.523	0.934	132.603
48.5	10	150.980	150.980	0.931	132.127
48.5	9.5	157.497	157.497	0.971	137.830
48.5	9	146.368	146.368	0.903	128.091
48.5	8.5	163.174	163.174	1.006	142.798
48.5	8	162.763	162.763	1.004	142.439
48.5	7.5	169.687	169.687	1.047	148.499
48.5	7	170.766	170.766	1.053	149.443
48.5	6.5	176.082	176.082	1.086	154.095
48.5	6	170.590	170.590	1.052	149.289
48.5	5.5	175.089	175.089	1.080	153.226
48.5	5	187.378	187.378	1.156	163.980
48.5	4.5	194.232	194.232	1.198	169.979
48.5	4	192.367	192.367	1.186	168.347
48.5	3.5	197.466	197.466	1.218	172.809
48.5	3	207.648	207.648	1.281	181.719
48.5	2.5				
48.5	2				
39.5	16	67.776	67.776	0.380	53.958
39.5	15	74.962	74.962	0.421	59.680
39.5	14	88.141	88.141	0.495	70.171
39.5	13	116.934	116.934	0.656	93.095

Table D1: Concentration Data

x	z	Raw C1	Cor C1	Norm C1	Final C1	x	z	Raw C2	Cor C2	Norm C2	Final C2
51	12	156.865	156.865	0.925	131.250	39.5	12	155.108	155.108	0.870	123.487
51	11	179.043	179.043	1.056	149.806	39.5	11	176.965	176.965	0.993	140.887
51	10	168.474	168.474	0.993	140.963	39.5	10	164.025	164.025	0.920	130.585
51	9.5	165.490	165.490	0.976	138.466	39.5	9.5	173.473	173.473	0.973	138.107
51	9	170.305	170.305	1.004	142.495	39.5	9	165.175	165.175	0.927	131.501
51	8.5	166.258	166.258	0.980	139.109	39.5	8.5	170.978	170.978	0.959	136.121
51	8	190.719	190.719	1.125	159.576	39.5	8	186.124	186.124	1.044	148.179
51	7.5	181.948	181.948	1.073	152.237	39.5	7.5	184.039	184.039	1.033	146.519
51	7	200.821	200.821	1.184	168.028	39.5	7	208.377	208.377	1.169	165.895
51	6.5	211.229	211.229	1.246	176.737	39.5	6.5	221.123	221.123	1.241	176.043
51	6	201.225	201.225	1.187	168.366	39.5	6	200.061	200.061	1.122	159.274
51	5.5	211.129	211.129	1.245	176.653	39.5	5.5	206.496	206.496	1.159	164.397
51	5	238.734	238.734	1.408	199.750	39.5	5	235.989	235.989	1.324	187.878
51	4.5	251.346	251.346	1.482	210.303	39.5	4.5	241.628	241.628	1.356	192.368
51	4					39.5	4	254.030	254.030	1.425	202.241
51	3.5					39.5	3.5	273.339	273.339	1.534	217.614
51	3					39.5	3				
51	2.7					39.5	2.7				
51	2.4					39.5	2.4				
51	2.1					39.5	2.1				
45	16	78.724	78.724	0.575	81.540	33.5	16	82.685	82.685	0.576	81.695
45	15	85.199	85.199	0.622	88.247	33.5	15	78.323	78.323	0.545	77.385
45	14	81.925	81.925	0.598	84.856	33.5	14	86.444	86.444	0.602	85.409
45	13	121.198	121.198	0.885	125.534	33.5	13	117.055	117.055	0.815	115.654
45	12	161.581	161.581	1.179	167.362	33.5	12	159.338	159.338	1.109	157.431
45	11	149.803	149.803	1.093	155.163	33.5	11	151.282	151.282	1.053	149.471
45	10	135.558	135.558	0.989	140.407	33.5	10	144.915	144.915	1.009	143.180
45	9.5	140.189	140.189	1.023	145.204	33.5	9.5	143.237	143.237	0.997	141.522
45	9	146.081	146.081	1.066	151.307	33.5	9	148.300	148.300	1.033	146.524
45	8.5	149.533	149.533	1.091	154.883	33.5	8.5	147.359	147.359	1.026	145.594
45	8	146.757	146.757	1.071	152.007	33.5	8	152.495	152.495	1.062	150.670
45	7.5	136.531	136.531	0.997	141.416	33.5	7.5	139.295	139.295	0.970	137.627
45	7	148.068	148.068	1.081	153.365	33.5	7	155.189	155.189	1.081	153.331
45	6.5	153.644	153.644	1.121	159.140	33.5	6.5	156.710	156.710	1.091	154.834
45	6	163.459	163.459	1.193	169.307	33.5	6	161.158	161.158	1.122	159.229
45	5.5	167.504	167.504	1.223	173.496	33.5	5.5	163.010	163.010	1.135	161.058
45	5	163.227	163.227	1.191	169.066	33.5	5	165.366	165.366	1.151	163.387
45	4.5					33.5	4.5	170.535	170.535	1.187	168.494
45	4					33.5	4	206.072	206.072	1.435	203.605
45	3.5					33.5	3.5				
45	3					33.5	3				
45	2.7					33.5	2.7				
45	2.4					33.5	2.4				
42	16	44.567	192.150	0.953	135.239	30.5	16	53.880	179.511	0.941	133.545
42	15	43.650	191.233	0.949	134.594	30.5	15	48.537	174.168	0.913	129.570
42	14	40.525	188.109	0.933	132.394	30.5	14	42.932	168.564	0.884	125.401
42	13	37.871	185.454	0.920	130.526	30.5	13	50.985	176.617	0.926	131.392
42	12	185.454	185.454	0.920	130.526	30.5	12	176.617	176.617	0.926	131.392
42	11	178.047	178.047	0.883	125.313	30.5	11	182.667	182.667	0.958	135.893
42	10	198.794	198.794	0.986	139.915	30.5	10	183.022	183.022	0.960	136.156
42	9.5	195.774	195.774	0.971	137.790	30.5	9.5	186.110	186.110	0.976	138.454
42	9	194.230	194.230	0.963	136.703	30.5	9	189.221	189.221	0.992	140.768
42	8.5	192.445	192.445	0.955	135.447	30.5	8.5	187.216	187.216	0.982	139.277
42	8	207.317	207.317	1.028	145.913	30.5	8	187.022	187.022	0.980	139.133
42	7.5	205.070	205.070	1.017	144.332	30.5	7.5	191.363	191.363	1.003	142.362
42	7	206.441	206.441	1.024	145.297	30.5	7	187.779	187.779	0.984	139.696
42	6.5	209.161	209.161	1.037	147.211	30.5	6.5	196.852	196.852	1.032	146.446
42	6	220.036	220.036	1.091	154.866	30.5	6	200.130	200.130	1.049	148.884
42	5.5	235.196	235.196	1.167	165.535	30.5	5.5	216.391	216.391	1.134	160.981
42	5	242.529	242.529	1.203	170.697	30.5	5	219.866	219.866	1.153	163.567
42	4.5					30.5	4.5	230.241	230.241	1.207	171.285
42	4					30.5	4				
42	3.5					30.5	3.5				
42	3.2					30.5	3.2				
42	2.9					30.5	2.9				
42	2.6					30.5	2.6				
36	16	38.427	161.545	0.548	77.742	24.5	16	52.892	169.334	0.951	134.966
36	15	40.796	163.914	0.556	78.882	24.5	15	46.674	163.116	0.916	130.009
36	14	51.213	174.331	0.591	83.895	24.5	14	51.818	168.260	0.945	134.110
36	13	56.072	179.189	0.608	86.234	24.5	13	53.512	169.954	0.955	135.459

Table D1: Concentration Data

x	z	Raw C1	Cor C1	Norm C1	Final C1	x	z	Raw C2	Cor C2	Norm C2	Final C2
36	12	179.189	179.189	0.608	86.234	24.5	12	169.954	169.954	0.955	135.459
36	11	172.813	172.813	0.586	83.165	24.5	11	164.537	164.537	0.924	131.142
36	10	176.592	176.592	0.599	84.983	24.5	10	163.833	163.833	0.920	130.581
36	9.5	183.184	183.184	0.621	88.156	24.5	9.5	175.156	175.156	0.984	139.605
36	9	188.423	188.423	0.639	90.677	24.5	9	173.853	173.853	0.977	138.567
36	8.5	197.324	197.324	0.669	94.961	24.5	8.5	175.131	175.131	0.984	139.586
36	8	215.870	215.870	0.732	103.886	24.5	8	180.266	180.266	1.013	143.679
36	7.5	206.284	206.284	0.700	99.272	24.5	7.5	168.005	168.005	0.944	133.907
36	7	240.027	240.027	0.814	115.511	24.5	7	187.031	187.031	1.051	149.071
36	6.5	283.327	283.327	0.961	136.349	24.5	6.5	203.094	203.094	1.141	161.874
36	6	322.743	322.743	1.095	155.318	24.5	6	198.813	198.813	1.117	158.462
36	5.5	379.247	379.247	1.286	182.510	24.5	5.5	194.065	194.065	1.090	154.677
36	5	492.137	492.137	1.669	236.837	24.5	5	202.180	202.180	1.136	161.145
36	4.5	671.392	671.392	2.277	323.102	24.5	4.5				
36	4	673.143	673.143	2.283	323.945	24.5	4				
36	3.5	636.561	636.561	2.159	306.340	24.5	3.5				
36	3.1					24.5	3.1				
27	16	71.909	71.909	0.464	65.886	15.5	16	86.827	86.827	0.562	79.692
27	15	75.941	75.941	0.490	69.581	15.5	15	75.637	75.637	0.489	69.421
27	14	82.563	82.563	0.533	75.649	15.5	14	85.293	85.293	0.552	78.285
27	13	110.932	110.932	0.716	101.641	15.5	13	114.961	114.961	0.744	105.514
27	12	125.717	125.717	0.812	115.188	15.5	12	132.442	132.442	0.857	121.559
27	11	133.713	133.713	0.863	122.514	15.5	11	139.297	139.297	0.901	127.850
27	10	147.328	147.328	0.951	134.989	15.5	10	154.669	154.669	1.000	141.959
27	9.5	131.705	131.705	0.850	120.675	15.5	9.5	139.749	139.749	0.904	128.266
27	9	141.622	141.622	0.914	129.761	15.5	9	153.876	153.876	0.995	141.232
27	8.5	144.754	144.754	0.935	132.630	15.5	8.5	162.255	162.255	1.049	148.922
27	8	153.999	153.999	0.994	141.102	15.5	8	167.106	167.106	1.081	153.374
27	7.5	165.792	165.792	1.071	151.907	15.5	7.5	185.864	185.864	1.202	170.591
27	7	171.044	171.044	1.104	156.719	15.5	7	197.512	197.512	1.278	181.282
27	6.5	167.501	167.501	1.082	153.473	15.5	6.5	199.960	199.960	1.293	183.529
27	6	166.741	166.741	1.077	152.777	15.5	6	219.762	219.762	1.421	201.704
27	5.5	212.129	212.129	1.370	194.363	15.5	5.5	258.458	258.458	1.672	237.220
27	5	250.656	250.656	1.618	229.664	15.5	5				
27	4.5	308.632	308.632	1.993	282.784	15.5	4.5				
27	4.2	179.861	179.861	1.161	164.798	15.5	4.2				
21	16	74.863	74.863	0.487	69.140	9.5	16	85.243	85.243	0.399	56.646
21	15	83.989	83.989	0.547	77.568	9.5	15	89.291	89.291	0.418	59.336
21	14	99.952	99.952	0.651	92.310	9.5	14	100.835	100.835	0.472	67.007
21	13	112.905	112.905	0.735	104.273	9.5	13	105.453	105.453	0.494	70.076
21	12	149.886	149.886	0.976	138.427	9.5	12	157.151	157.151	0.736	104.430
21	11	147.504	147.504	0.960	136.226	9.5	11	155.742	155.742	0.729	103.494
21	10	149.402	149.402	0.972	137.980	9.5	10	168.184	168.184	0.788	111.761
21	9.5	150.938	150.938	0.982	139.398	9.5	9.5	172.534	172.534	0.808	114.652
21	9	143.717	143.717	0.935	132.730	9.5	9	171.242	171.242	0.802	113.794
21	8.5	166.830	166.830	1.086	154.075	9.5	8.5	191.992	191.992	0.899	127.583
21	8	168.106	168.106	1.094	155.254	9.5	8	194.522	194.522	0.911	129.264
21	7.5	153.417	153.417	0.999	141.688	9.5	7.5	207.330	207.330	0.971	137.775
21	7	182.647	182.647	1.189	168.683	9.5	7	224.284	224.284	1.050	149.041
21	6.5	173.624	173.624	1.130	160.350	9.5	6.5	233.583	233.583	1.094	155.221
21	6	167.383	167.383	1.089	154.586	9.5	6	262.644	262.644	1.230	174.532
21	5.5	164.678	164.678	1.072	152.088	9.5	5.5	301.865	301.865	1.414	200.595
21	5	187.159	187.159	1.218	172.850	9.5	5	337.679	337.679	1.581	224.395
21	4.5	230.068	230.068	1.497	212.479	9.5	4.5	426.607	426.607	1.998	283.489
21	4.2	172.629	172.629	1.124	159.431	9.5	4.2	310.201	310.201	1.453	206.135
21	3.9	193.239	193.239	1.258	178.465	9.5	3.9	374.364	374.364	1.753	248.773
18	16	49.038	171.355	0.831	117.906	6.5	16	64.399	187.418	0.832	118.102
18	15	56.839	179.156	0.869	123.274	6.5	15	48.731	171.750	0.763	108.229
18	14	57.140	179.457	0.870	123.481	6.5	14	54.684	177.703	0.789	111.980
18	13	61.495	183.811	0.891	126.477	6.5	13	60.881	183.900	0.817	115.885
18	12	183.811	183.811	0.891	126.477	6.5	12	183.900	183.900	0.817	115.885
18	11	182.855	182.855	0.887	125.819	6.5	11	183.517	183.517	0.815	115.644
18	10	177.797	177.797	0.862	122.339	6.5	10	185.539	185.539	0.824	116.918
18	9.5	183.071	183.071	0.888	125.968	6.5	9.5	190.699	190.699	0.847	120.170
18	9	195.114	195.114	0.946	134.254	6.5	9	197.889	197.889	0.879	124.701
18	8.5	180.368	180.368	0.875	124.107	6.5	8.5	185.511	185.511	0.824	116.900
18	8	181.754	181.754	0.881	125.061	6.5	8	192.431	192.431	0.855	121.261
18	7.5	179.772	179.772	0.872	123.698	6.5	7.5	182.176	182.176	0.809	114.799
18	7	192.094	192.094	0.931	132.176	6.5	7	194.898	194.898	0.866	122.816
18	6.5	210.649	210.649	1.021	144.944	6.5	6.5	212.091	212.091	0.942	133.650

Table D1: Concentration Data

x	z	Raw C1	Cor C1	Norm C1	Final C1
18	6	215.558	215.558	1.045	148.321
18	5.5	225.708	225.708	1.094	155.306
18	5	232.895	232.895	1.129	160.251
18	4.5	254.837	254.837	1.236	175.348
18	4	282.205	282.205	1.368	194.180
18	3.5	224.832	224.832	1.090	154.703
18	3	246.067	246.067	1.193	169.314
18	2.5	273.804	273.804	1.328	188.399
18	2				
18	1.5				
12	16	45.816	159.905	0.928	131.654
12	15	48.291	162.380	0.942	133.692
12	14	52.674	166.763	0.968	137.301
12	13	56.935	171.024	0.992	140.809
12	12	171.024	171.024	0.992	140.809
12	11	167.612	167.612	0.973	138.000
12	10	160.753	160.753	0.933	132.353
12	9.5	149.797	149.797	0.869	123.332
12	9	151.643	151.643	0.880	124.852
12	8.5	155.696	155.696	0.903	128.189
12	8	152.830	152.830	0.887	125.830
12	7.5	151.807	151.807	0.881	124.987
12	7	151.218	151.218	0.877	124.502
12	6.5	155.792	155.792	0.904	128.268
12	6	169.556	169.556	0.984	139.600
12	5.5	173.827	173.827	1.009	143.117
12	5	192.226	192.226	1.115	158.265
12	4.5	189.584	189.584	1.100	156.090
12	4	197.045	197.045	1.143	162.233
12	3.5	224.250	224.250	1.301	184.632
12	3.2	223.162	223.162	1.295	183.736
12	2.9	193.779	193.779	1.124	159.544
12	2.5				
12	2				

x	z	Raw C2	Cor C2	Norm C2	Final C2
6.5	6	221.610	221.610	0.984	139.648
6.5	5.5	232.682	232.682	1.033	146.626
6.5	5	237.084	237.084	1.053	149.400
6.5	4.5	267.844	267.844	1.189	168.783
6.5	4	324.766	324.766	1.442	204.653
6.5	3.5	242.159	242.159	1.075	152.598
6.5	3	270.108	270.108	1.200	170.209
6.5	2.5	288.073	288.073	1.279	181.531
6.5	2	318.771	318.771	1.416	200.875
6.5	1.5	371.876	371.876	1.651	234.339
0.5	16	54.238	167.031	1.018	144.431
0.5	15	49.296	162.090	0.988	140.159
0.5	14	52.599	165.392	1.008	143.014
0.5	13	55.452	168.246	1.025	145.482
0.5	12	168.246	168.246	1.025	145.482
0.5	11	166.067	166.067	1.012	143.598
0.5	10	163.955	163.955	0.999	141.771
0.5	9.5	156.649	156.649	0.955	135.453
0.5	9	148.866	148.866	0.907	128.724
0.5	8.5	155.459	155.459	0.947	134.425
0.5	8	152.389	152.389	0.929	131.770
0.5	7.5	149.765	149.765	0.913	129.501
0.5	7	148.644	148.644	0.906	128.531
0.5	6.5	158.408	158.408	0.965	136.974
0.5	6	157.775	157.775	0.961	136.428
0.5	5.5	157.284	157.284	0.958	136.002
0.5	5	161.250	161.250	0.983	139.432
0.5	4.5	160.150	160.150	0.976	138.481
0.5	4	160.624	160.624	0.979	138.891
0.5	3.5	182.145	182.145	1.110	157.500
0.5	3.2	176.928	176.928	1.078	152.989
0.5	2.9	171.528	171.528	1.045	148.320
0.5	2.5	177.883	177.883	1.084	153.815
0.5	2	201.723	201.723	1.229	174.429

Table D1: Concentration Data

x	z	Raw C3	Cor C3	Norm C3	Final C3
65	16	67.814	138.702	0.733	104.031
65	15	67.610	138.498	0.732	103.877
65	14	70.370	141.258	0.747	105.948
65	13	90.216	161.104	0.852	120.833
65	12	161.104	161.104	0.852	120.833
65	11	172.593	172.593	0.912	129.450
65	10	170.213	170.213	0.900	127.665
65	9.5	165.335	165.335	0.874	124.006
65	9	177.454	177.454	0.938	133.096
65	8.5	182.396	182.396	0.964	136.803
65	8	183.195	183.195	0.968	137.402
65	7.5	209.836	209.836	1.109	157.384
65	7	199.613	199.613	1.055	149.716
65	6.5	214.073	214.073	1.132	160.561
65	6	221.903	221.903	1.173	166.434
65	5.5	221.664	221.664	1.172	166.255
65	5	231.494	231.494	1.224	173.628
65	4.5	249.404	249.404	1.318	187.061
65	4	254.811	254.811	1.347	191.116
65	3.9				
65	3.6				
65	3.3				
65	3				
59	16	57.685	172.897	0.868	123.158
59	15	58.617	173.829	0.873	123.822
59	14	51.779	166.991	0.838	118.951
59	13	63.782	178.993	0.899	127.501
59	12	178.993	178.993	0.899	127.501
59	11	189.974	189.974	0.954	135.323
59	10	200.197	200.197	1.005	142.605
59	9.5	194.723	194.723	0.977	138.705
59	9	201.573	201.573	1.012	143.585
59	8.5	194.405	194.405	0.976	138.479
59	8	200.368	200.368	1.006	142.727
59	7.5	203.155	203.155	1.020	144.712
59	7	208.424	208.424	1.046	148.465
59	6.5	203.504	203.504	1.022	144.960
59	6	226.029	226.029	1.135	161.005
59	5.5	213.018	213.018	1.069	151.737
59	5	244.344	244.344	1.227	174.051
59	4.5	234.321	234.321	1.176	166.912
59	4				
59	3.7				
59	3.4				
59	3.1				
50	16	77.928	77.928	0.419	59.455
50	15	85.424	85.424	0.459	65.175
50	14	92.493	92.493	0.497	70.568
50	13	138.785	138.785	0.746	105.886
50	12	137.268	137.268	0.738	104.729
50	11	153.029	153.029	0.823	116.753
50	10	149.465	149.465	0.804	114.034
50	9.5	168.034	168.034	0.903	128.202
50	9	169.749	169.749	0.913	129.510
50	8.5	180.241	180.241	0.969	137.515
50	8	183.181	183.181	0.985	139.758
50	7.5	202.696	202.696	1.090	154.647
50	7	226.744	226.744	1.219	172.995
50	6.5	259.296	259.296	1.394	197.830
50	6	320.878	320.878	1.725	244.814
50	5.5	430.602	430.602	2.315	328.528
50	5				
50	4.5				
50	4.2				
50	3.9				
50	3.6				
50	3				
50	2.5				
44	16	74.878	74.878	0.393	55.807
44	15	81.408	81.408	0.428	60.674

x&z of 4	Raw C4	Cor C4	Norm C4	Final C4
Stationary	101.945	177.295	0.930	131.941
Stationary	104.722	180.072	0.944	134.008
Stationary	105.119	180.469	0.946	134.303
Stationary	119.250	194.600	1.021	144.819
Stationary	194.600	194.600	1.021	144.819
Stationary	194.715	194.715	1.021	144.905
Stationary	189.846	189.846	0.996	141.281
Stationary	189.174	189.174	0.992	140.782
Stationary	192.582	192.582	1.010	143.318
Stationary	189.945	189.945	0.996	141.355
Stationary	187.774	187.774	0.985	139.739
Stationary	191.386	191.386	1.004	142.428
Stationary	187.550	187.550	0.984	139.573
Stationary	194.631	194.631	1.021	144.842
Stationary	193.468	193.468	1.015	143.977
Stationary	192.521	192.521	1.010	143.272
Stationary	196.716	196.716	1.032	146.394
Stationary	185.027	185.027	0.970	137.695
Stationary	194.095	194.095	1.018	144.444
Stationary	201.352	201.352	1.056	149.844
Stationary	189.441	189.441	0.994	140.980
Stationary	198.365	198.365	1.040	147.621
Stationary	189.950	189.950	0.996	141.359
Stationary	96.243	206.467	1.045	148.278
Stationary	96.698	206.923	1.047	148.605
Stationary	94.840	205.064	1.038	147.271
Stationary	94.867	205.091	1.038	147.290
Stationary	205.091	205.091	1.038	147.290
Stationary	197.800	197.800	1.001	142.054
Stationary	192.809	192.809	0.976	138.469
Stationary	199.018	199.018	1.007	142.928
Stationary	194.502	194.502	0.984	139.685
Stationary	191.729	191.729	0.970	137.694
Stationary	194.510	194.510	0.984	139.691
Stationary	192.819	192.819	0.976	138.477
Stationary	197.712	197.712	1.001	141.991
Stationary	197.148	197.148	0.998	141.585
Stationary	196.386	196.386	0.994	141.038
Stationary	194.053	194.053	0.982	139.363
Stationary	199.847	199.847	1.011	143.524
Stationary	192.466	192.466	0.974	138.223
Stationary	198.439	198.439	1.004	142.512
Stationary	188.376	188.376	0.953	135.285
Stationary	195.840	195.840	0.991	140.646
Stationary	194.805	194.805	0.986	139.902
Stationary	132.668	132.668	0.864	122.595
Stationary	128.838	128.838	0.839	119.056
Stationary	141.110	141.110	0.919	130.397
Stationary	169.750	169.750	1.105	156.863
Stationary	157.729	157.729	1.027	145.754
Stationary	156.011	156.011	1.016	144.166
Stationary	159.401	159.401	1.038	147.299
Stationary	157.815	157.815	1.028	145.833
Stationary	153.770	153.770	1.001	142.095
Stationary	162.645	162.645	1.059	150.296
Stationary	150.508	150.508	0.980	139.081
Stationary	156.333	156.333	1.018	144.464
Stationary	148.007	148.007	0.964	136.770
Stationary	148.124	148.124	0.965	136.878
Stationary	157.221	157.221	1.024	145.285
Stationary	159.232	159.232	1.037	147.143
Stationary	149.524	149.524	0.974	138.172
Stationary	153.312	153.312	0.998	141.673
Stationary	157.770	157.770	1.027	145.792
Stationary	156.598	156.598	1.020	144.709
Stationary	154.336	154.336	1.005	142.618
Stationary	163.750	163.750	1.066	151.318
Stationary	157.390	157.390	1.025	145.440
Stationary	132.408	132.408	0.879	124.708
Stationary	124.851	124.851	0.829	117.591

Table D1: Concentration Data

x	z	Raw C3	Cor C3	Norm C3	Final C3
44	14	87.875	87.875	0.462	65.494
44	13	124.352	124.352	0.653	92.680
44	12	136.602	136.602	0.717	101.811
44	11	149.445	149.445	0.785	111.382
44	10	145.533	145.533	0.764	108.467
44	9.5	153.753	153.753	0.808	114.593
44	9	157.767	157.767	0.829	117.585
44	8.5	183.284	183.284	0.963	136.603
44	8	178.299	178.299	0.936	132.887
44	7.5	186.801	186.801	0.981	139.225
44	7	195.240	195.240	1.025	145.514
44	6.5	231.815	231.815	1.218	172.774
44	6	210.896	210.896	1.108	157.182
44	5.5	265.401	265.401	1.394	197.806
44	5	276.585	276.585	1.453	206.141
44	4.5	249.715	249.715	1.312	186.115
44	4	284.580	284.580	1.495	212.100
44	3.5	249.519	249.519	1.311	185.968
44	3	298.503	298.503	1.568	222.477
44	2.5	266.353	266.353	1.399	198.515
41	16	53.246	147.592	0.733	104.042
41	15	58.268	152.615	0.758	107.583
41	14	59.463	153.810	0.764	108.425
41	13	67.473	161.820	0.804	114.072
41	12	161.820	161.820	0.804	114.072
41	11	175.923	175.923	0.874	124.014
41	10	185.161	185.161	0.920	130.526
41	9.5	182.332	182.332	0.906	128.531
41	9	187.357	187.357	0.931	132.074
41	8.5	194.612	194.612	0.967	137.188
41	8	205.662	205.662	1.022	144.977
41	7.5	209.219	209.219	1.039	147.485
41	7	200.627	200.627	0.997	141.428
41	6.5	217.100	217.100	1.079	153.041
41	6	224.014	224.014	1.113	157.914
41	5.5	219.524	219.524	1.091	154.749
41	5	223.390	223.390	1.110	157.475
41	4.5	229.389	229.389	1.140	161.703
41	4	229.004	229.004	1.138	161.432
41	3.5	230.156	230.156	1.143	162.244
41	3	238.455	238.455	1.185	168.095
41	2.5	247.589	247.589	1.230	174.533
41	2	252.647	252.647	1.255	178.098
41	1.5				
35	15	56.735	153.964	0.886	125.726
35	14	64.317	161.545	0.930	131.917
35	13	61.186	158.415	0.912	129.360
35	12	158.415	158.415	0.912	129.360
35	11	158.769	158.769	0.914	129.649
35	10	162.504	162.504	0.935	132.699
35	9.5	165.499	165.499	0.952	135.145
35	9	164.330	164.330	0.946	134.190
35	8.5	168.528	168.528	0.970	137.618
35	8	168.017	168.017	0.967	137.201
35	7.5	170.414	170.414	0.981	139.159
35	7	183.326	183.326	1.055	149.702
35	6.5	183.778	183.778	1.058	150.072
35	6	179.264	179.264	1.032	146.385
35	5.5	175.192	175.192	1.008	143.060
35	5	190.200	190.200	1.095	155.316
35	4.5	197.725	197.725	1.138	161.460
35	4	197.523	197.523	1.137	161.295
35	3.5	198.127	198.127	1.140	161.788
35	3	206.591	206.591	1.189	168.700
35	2.5	223.612	223.612	1.287	182.599
35	2				
26	16	74.045	74.045	0.399	56.569
26	15	74.382	74.382	0.400	56.827
26	14	96.108	96.108	0.517	73.426
26	13	132.245	132.245	0.712	101.034

x&z of 4	Raw C4	Cor C4	Norm C4	Final C4
Stationary	136.575	136.575	0.906	128.632
Stationary	157.584	157.584	1.046	148.419
Stationary	155.494	155.494	1.032	146.451
Stationary	152.403	152.403	1.012	143.540
Stationary	160.768	160.768	1.067	151.419
Stationary	155.929	155.929	1.035	146.861
Stationary	150.165	150.165	0.997	141.432
Stationary	154.442	154.442	1.025	145.461
Stationary	152.835	152.835	1.014	143.946
Stationary	152.358	152.358	1.011	143.497
Stationary	151.537	151.537	1.006	142.724
Stationary	150.926	150.926	1.002	142.149
Stationary	145.224	145.224	0.964	136.778
Stationary	143.434	143.434	0.952	135.093
Stationary	163.946	163.946	1.088	154.411
Stationary	157.365	157.365	1.044	148.214
Stationary	158.488	158.488	1.052	149.271
Stationary	154.972	154.972	1.029	145.960
Stationary	153.873	153.873	1.021	144.924
Stationary	148.981	148.981	0.989	140.317
Stationary	92.079	186.373	0.981	139.215
Stationary	91.817	186.111	0.980	139.019
Stationary	96.817	191.111	1.006	142.754
Stationary	100.608	194.902	1.026	145.585
Stationary	194.902	194.902	1.026	145.585
Stationary	196.598	196.598	1.035	146.852
Stationary	193.506	193.506	1.019	144.543
Stationary	194.315	194.315	1.023	145.147
Stationary	190.488	190.488	1.003	142.288
Stationary	185.928	185.928	0.979	138.882
Stationary	200.060	200.060	1.053	149.438
Stationary	191.121	191.121	1.006	142.761
Stationary	185.355	185.355	0.976	138.454
Stationary	189.629	189.629	0.998	141.647
Stationary	186.674	186.674	0.983	139.439
Stationary	183.053	183.053	0.964	136.735
Stationary	190.623	190.623	1.003	142.389
Stationary	186.951	186.951	0.984	139.646
Stationary	188.337	188.337	0.991	140.681
Stationary	186.973	186.973	0.984	139.662
Stationary	189.247	189.247	0.996	141.361
Stationary	186.260	186.260	0.980	139.130
Stationary	190.368	190.368	1.002	142.199
Stationary	189.658	189.658	0.998	141.668
Stationary	91.457	186.710	1.058	150.143
Stationary	98.530	193.783	1.098	155.830
Stationary	95.431	190.685	1.081	153.339
Stationary	190.685	190.685	1.081	153.339
Stationary	183.576	183.576	1.040	147.622
Stationary	185.201	185.201	1.050	148.929
Stationary	184.872	184.872	1.048	148.664
Stationary	180.996	180.996	1.026	145.547
Stationary	182.474	182.474	1.034	146.736
Stationary	177.672	177.672	1.007	142.875
Stationary	174.488	174.488	0.989	140.314
Stationary	181.180	181.180	1.027	145.695
Stationary	174.769	174.769	0.990	140.540
Stationary	176.831	176.831	1.002	142.198
Stationary	175.128	175.128	0.992	140.828
Stationary	176.467	176.467	1.000	141.905
Stationary	168.698	168.698	0.956	135.658
Stationary	179.194	179.194	1.015	144.098
Stationary	173.183	173.183	0.981	139.264
Stationary	180.350	180.350	1.022	145.028
Stationary	173.050	173.050	0.981	139.158
Stationary	173.342	173.342	0.982	139.392
Stationary	134.626	134.626	0.815	115.657
Stationary	140.591	140.591	0.851	120.782
Stationary	135.554	135.554	0.821	116.455
Stationary	159.451	159.451	0.965	136.985

Table D1: Concentration Data

x	z	Raw C3	Cor C3	Norm C3	Final C3
26	12	158.082	158.082	0.851	120.773
26	11	182.453	182.453	0.982	139.393
26	10	176.219	176.219	0.949	134.630
26	9.5	180.961	180.961	0.974	138.253
26	9	174.469	174.469	0.939	133.293
26	8.5	169.661	169.661	0.913	129.619
26	8	191.502	191.502	1.031	146.306
26	7.5	188.093	188.093	1.013	143.702
26	7	207.285	207.285	1.116	158.364
26	6.5	214.671	214.671	1.156	164.007
26	6	195.274	195.274	1.051	149.187
26	5.5	202.282	202.282	1.089	154.542
26	5	227.153	227.153	1.223	173.543
26	4.5	219.667	219.667	1.183	167.823
26	4	234.351	234.351	1.262	179.042
26	3.5	244.335	244.335	1.316	186.670
26	3	250.569	250.569	1.349	191.433
26	2.7	292.366	292.366	1.574	223.365
26	2.4				
26	2.1				
20	16	77.507	77.507	0.492	69.879
20	15	81.135	81.135	0.516	73.150
20	14	96.299	96.299	0.612	86.821
20	13	122.271	122.271	0.777	110.237
20	12	172.657	172.657	1.097	155.664
20	11	165.196	165.196	1.050	148.937
20	10	158.499	158.499	1.007	142.899
20	9.5	155.968	155.968	0.991	140.618
20	9	159.669	159.669	1.014	143.954
20	8.5	156.169	156.169	0.992	140.799
20	8	161.346	161.346	1.025	145.466
20	7.5	150.507	150.507	0.956	135.694
20	7	163.365	163.365	1.038	147.286
20	6.5	165.060	165.060	1.049	148.814
20	6	167.085	167.085	1.062	150.640
20	5.5	169.936	169.936	1.080	153.211
20	5	171.745	171.745	1.091	154.841
20	4.5	174.666	174.666	1.110	157.475
20	4	201.107	201.107	1.278	181.314
20	3.5	211.367	211.367	1.343	190.564
20	3	223.649	223.649	1.421	201.637
20	2.7				
20	2.4				
17	16	57.547	175.132	0.910	129.179
17	15	59.188	176.774	0.919	130.390
17	14	56.694	174.279	0.906	128.550
17	13	63.969	181.555	0.944	133.917
17	12	181.555	181.555	0.944	133.917
17	11	185.765	185.765	0.966	137.022
17	10	193.267	193.267	1.005	142.555
17	9.5	182.213	182.213	0.947	134.402
17	9	181.329	181.329	0.943	133.750
17	8.5	179.103	179.103	0.931	132.108
17	8	194.948	194.948	1.013	143.796
17	7.5	193.893	193.893	1.008	143.018
17	7	181.192	181.192	0.942	133.649
17	6.5	180.894	180.894	0.940	133.429
17	6	193.546	193.546	1.006	142.761
17	5.5	212.588	212.588	1.105	156.807
17	5	209.473	209.473	1.089	154.510
17	4.5	222.016	222.016	1.154	163.761
17	4	214.432	214.432	1.115	158.167
17	3.5	233.609	233.609	1.214	172.312
17	3.2				
17	2.9				
17	2.6				
11	16	54.327	153.569	0.864	122.531
11	15	56.435	155.677	0.875	124.213
11	14	59.618	158.860	0.893	126.752
11	13	67.790	167.033	0.939	133.273

x&z of 4	Raw C4	Cor C4	Norm C4	Final C4
Stationary	187.488	187.488	1.135	161.072
Stationary	178.912	178.912	1.083	153.704
Stationary	182.393	182.393	1.104	156.694
Stationary	167.470	167.470	1.014	143.874
Stationary	169.126	169.126	1.024	145.297
Stationary	179.197	179.197	1.085	153.949
Stationary	168.583	168.583	1.021	144.830
Stationary	175.909	175.909	1.065	151.124
Stationary	165.831	165.831	1.004	142.466
Stationary	164.347	164.347	0.995	141.191
Stationary	161.155	161.155	0.976	138.449
Stationary	168.216	168.216	1.018	144.514
Stationary	173.076	173.076	1.048	148.690
Stationary	169.182	169.182	1.024	145.345
Stationary	167.020	167.020	1.011	143.487
Stationary	158.836	158.836	0.962	136.456
Stationary	167.705	167.705	1.015	144.076
Stationary	157.885	157.885	0.956	135.640
Stationary	166.864	166.864	1.010	143.353
Stationary	164.719	164.719	0.997	141.511
Stationary	137.578	137.578	0.858	121.812
Stationary	143.473	143.473	0.895	127.032
Stationary	136.127	136.127	0.849	120.528
Stationary	158.609	158.609	0.990	140.433
Stationary	203.022	203.022	1.267	179.757
Stationary	171.251	171.251	1.069	151.627
Stationary	173.854	173.854	1.085	153.932
Stationary	163.906	163.906	1.023	145.123
Stationary	168.045	168.045	1.049	148.788
Stationary	162.867	162.867	1.016	144.203
Stationary	164.507	164.507	1.026	145.656
Stationary	159.418	159.418	0.995	141.150
Stationary	162.468	162.468	1.014	143.850
Stationary	155.514	155.514	0.970	137.693
Stationary	154.087	154.087	0.961	136.430
Stationary	160.103	160.103	0.999	141.756
Stationary	155.657	155.657	0.971	137.820
Stationary	157.376	157.376	0.982	139.342
Stationary	154.178	154.178	0.962	136.510
Stationary	157.707	157.707	0.984	139.635
Stationary	162.965	162.965	1.017	144.291
Stationary	159.864	159.864	0.997	141.545
Stationary	163.527	163.527	1.020	144.788
Stationary	99.940	203.097	1.051	149.180
Stationary	89.878	193.035	0.999	141.790
Stationary	91.624	194.781	1.008	143.072
Stationary	96.998	200.155	1.036	147.020
Stationary	200.155	200.155	1.036	147.020
Stationary	206.203	206.203	1.067	151.462
Stationary	199.653	199.653	1.033	146.650
Stationary	202.098	202.098	1.046	148.447
Stationary	187.639	187.639	0.971	137.826
Stationary	195.098	195.098	1.010	143.304
Stationary	190.917	190.917	0.988	140.234
Stationary	196.173	196.173	1.015	144.094
Stationary	184.056	184.056	0.953	135.194
Stationary	193.876	193.876	1.004	142.407
Stationary	191.773	191.773	0.993	140.862
Stationary	194.057	194.057	1.005	142.540
Stationary	178.688	178.688	0.925	131.251
Stationary	187.847	187.847	0.972	137.979
Stationary	187.072	187.072	0.968	137.409
Stationary	187.260	187.260	0.969	137.547
Stationary	192.099	192.099	0.994	141.102
Stationary	182.425	182.425	0.944	133.996
Stationary	195.112	195.112	1.010	143.315
Stationary	91.146	175.863	1.005	142.591
Stationary	90.801	175.518	1.003	142.311
Stationary	98.588	183.305	1.047	148.625
Stationary	102.660	187.377	1.071	151.927

Table D1: Concentration Data

x	z	Raw C3	Cor C3	Norm C3	Final C3	x&z of 4	Raw C4	Cor C4	Norm C4	Final C4
11	12	167.033	167.033	0.939	133.273	Stationary	187.377	187.377	1.071	151.927
11	11	166.889	166.889	0.938	133.158	Stationary	184.034	184.034	1.052	149.216
11	10	171.754	171.754	0.966	137.040	Stationary	179.074	179.074	1.023	145.195
11	9.5	168.309	168.309	0.946	134.292	Stationary	177.221	177.221	1.013	143.693
11	9	169.928	169.928	0.955	135.584	Stationary	175.779	175.779	1.004	142.523
11	8.5	169.365	169.365	0.952	135.134	Stationary	172.037	172.037	0.983	139.489
11	8	186.709	186.709	1.050	148.973	Stationary	175.547	175.547	1.003	142.335
11	7.5	171.522	171.522	0.964	136.855	Stationary	170.375	170.375	0.974	138.142
11	7	179.597	179.597	1.010	143.298	Stationary	168.875	168.875	0.965	136.926
11	6.5	191.188	191.188	1.075	152.546	Stationary	173.948	173.948	0.994	141.039
11	6	192.101	192.101	1.080	153.275	Stationary	169.368	169.368	0.968	137.325
11	5.5	190.276	190.276	1.070	151.819	Stationary	170.767	170.767	0.976	138.459
11	5	193.089	193.089	1.086	154.063	Stationary	167.920	167.920	0.959	136.151
11	4.5	213.071	213.071	1.198	170.007	Stationary	171.179	171.179	0.978	138.793
11	4	213.078	213.078	1.198	170.012	Stationary	166.178	166.178	0.950	134.738
11	3.5					Stationary	172.421	172.421	0.985	139.800
11	3.1					Stationary	171.058	171.058	0.977	138.695
2	16	74.827	74.827	0.486	68.996	Stationary	134.252	134.252	0.852	120.955
2	15	86.371	86.371	0.561	79.640	Stationary	138.150	138.150	0.877	124.467
2	14	93.643	93.643	0.608	86.346	Stationary	125.947	125.947	0.800	113.473
2	13	123.043	123.043	0.800	113.455	Stationary	153.520	153.520	0.975	138.315
2	12	146.191	146.191	0.950	134.799	Stationary	171.336	171.336	1.088	154.366
2	11	144.862	144.862	0.941	133.574	Stationary	158.981	158.981	1.009	143.236
2	10	154.828	154.828	1.006	142.764	Stationary	164.683	164.683	1.046	148.372
2	9.5	139.253	139.253	0.905	128.402	Stationary	161.278	161.278	1.024	145.305
2	9	161.638	161.638	1.050	149.043	Stationary	161.620	161.620	1.026	145.613
2	8.5	163.147	163.147	1.060	150.434	Stationary	163.222	163.222	1.036	147.056
2	8	163.709	163.709	1.064	150.952	Stationary	162.528	162.528	1.032	146.431
2	7.5	163.909	163.909	1.065	151.137	Stationary	169.190	169.190	1.074	152.433
2	7	170.033	170.033	1.105	156.783	Stationary	166.355	166.355	1.056	149.879
2	6.5	184.444	184.444	1.199	170.071	Stationary	159.532	159.532	1.013	143.732
2	6	178.979	178.979	1.163	165.033	Stationary	157.939	157.939	1.003	142.296
2	5.5	209.693	209.693	1.363	193.353	Stationary	162.860	162.860	1.034	146.730
2	5	200.637	200.637	1.304	185.002	Stationary	157.652	157.652	1.001	142.038
2	4.5	210.845	210.845	1.370	194.415	Stationary	162.903	162.903	1.034	146.769
2	4.2					Stationary	160.534	160.534	1.019	144.634
-4	16	86.782	86.782	0.517	73.324	Stationary	140.548	140.548	0.849	120.458
-4	15	91.902	91.902	0.547	77.650	Stationary	140.061	140.061	0.846	120.040
-4	14	106.175	106.175	0.632	89.710	Stationary	136.114	136.114	0.822	116.658
-4	13	123.392	123.392	0.735	104.257	Stationary	157.095	157.095	0.949	134.639
-4	12	161.297	161.297	0.960	136.283	Stationary	188.991	188.991	1.141	161.975
-4	11	163.868	163.868	0.976	138.456	Stationary	171.665	171.665	1.037	147.126
-4	10	176.119	176.119	1.049	148.807	Stationary	176.807	176.807	1.068	151.534
-4	9.5	174.806	174.806	1.041	147.698	Stationary	172.020	172.020	1.039	147.431
-4	9	166.997	166.997	0.994	141.100	Stationary	179.250	179.250	1.083	153.628
-4	8.5	184.325	184.325	1.098	155.740	Stationary	165.706	165.706	1.001	142.020
-4	8	183.844	183.844	1.095	155.335	Stationary	167.504	167.504	1.012	143.560
-4	7.5	189.664	189.664	1.129	160.251	Stationary	168.802	168.802	1.020	144.673
-4	7	192.685	192.685	1.147	162.804	Stationary	169.996	169.996	1.027	145.696
-4	6.5	194.410	194.410	1.158	164.262	Stationary	169.827	169.827	1.026	145.551
-4	6	211.542	211.542	1.260	178.737	Stationary	164.724	164.724	0.995	141.177
-4	5.5	223.631	223.631	1.332	188.951	Stationary	166.702	166.702	1.007	142.873
-4	5	223.612	223.612	1.331	188.935	Stationary	165.931	165.931	1.002	142.212
-4	4.5					Stationary	173.985	173.985	1.051	149.114
-4	4.2					Stationary	170.270	170.270	1.028	145.931
-4	3.9					Stationary	165.337	165.337	0.999	141.703
-7	16	59.259	173.645	0.912	129.439	Stationary	105.765	193.861	1.070	151.801
-7	15	68.737	183.123	0.962	136.505	Stationary	109.472	197.568	1.090	154.704
-7	14	69.525	183.911	0.966	137.092	Stationary	107.400	195.496	1.079	153.082
-7	13	72.678	187.064	0.983	139.442	Stationary	101.743	189.839	1.048	148.652
-7	12	187.064	187.064	0.983	139.442	Stationary	189.839	189.839	1.048	148.652
-7	11	186.604	186.604	0.980	139.099	Stationary	188.150	188.150	1.038	147.329
-7	10	187.571	187.571	0.985	139.820	Stationary	186.392	186.392	1.029	145.953
-7	9.5	190.775	190.775	1.002	142.208	Stationary	185.380	185.380	1.023	145.160
-7	9	193.933	193.933	1.019	144.562	Stationary	185.135	185.135	1.022	144.968
-7	8.5	180.062	180.062	0.946	134.223	Stationary	174.947	174.947	0.965	136.991
-7	8	187.597	187.597	0.985	139.840	Stationary	182.251	182.251	1.006	142.710
-7	7.5	185.554	185.554	0.975	138.316	Stationary	173.479	173.479	0.957	135.841
-7	7	193.929	193.929	1.019	144.560	Stationary	178.663	178.663	0.986	139.901
-7	6.5	196.186	196.186	1.031	146.242	Stationary	172.286	172.286	0.951	134.907

Table D1: Concentration Data

x	z	Raw C3	Cor C3	Norm C3	Final C3
-7	6	199.494	199.494	1.048	148.708
-7	5.5	204.554	204.554	1.075	152.479
-7	5	215.077	215.077	1.130	160.323
-7	4.5				
-7	4				
-7	3.5				
-7	3				
-7	2.5				
-7	2				
-7	1.5				
-13	16	60.184	169.405	0.787	111.731
-13	15	62.406	171.628	0.798	113.197
-13	14	63.648	172.870	0.803	114.016
-13	13	70.421	179.642	0.835	118.483
-13	12	179.642	179.642	0.835	118.483
-13	11	178.058	178.058	0.828	117.438
-13	10	176.335	176.335	0.820	116.302
-13	9.5	168.649	168.649	0.784	111.233
-13	9	168.300	168.300	0.782	111.002
-13	8.5	179.324	179.324	0.833	118.273
-13	8	178.342	178.342	0.829	117.625
-13	7.5	181.196	181.196	0.842	119.508
-13	7	197.472	197.472	0.918	130.242
-13	6.5	212.597	212.597	0.988	140.218
-13	6	246.610	246.610	1.146	162.651
-13	5.5	265.988	265.988	1.236	175.432
-13	5	335.961	335.961	1.562	221.583
-13	4.5	385.777	385.777	1.793	254.439
-13	4	339.991	339.991	1.580	224.241
-13	3.5				
-13	3.2				
-13	2.9				
-13	2.5				
-13	2				

x&z of 4	Raw C4	Cor C4	Norm C4	Final C4
Stationary	173.090	173.090	0.955	135.537
Stationary	175.542	175.542	0.969	137.457
Stationary	175.459	175.459	0.968	137.391
Stationary	173.636	173.636	0.958	135.964
Stationary	177.968	177.968	0.982	139.356
Stationary	173.017	173.017	0.955	135.480
Stationary	177.998	177.998	0.982	139.380
Stationary	177.960	177.960	0.982	139.350
Stationary	177.249	177.249	0.978	138.793
Stationary	173.992	173.992	0.960	136.243
Stationary	104.262	191.793	1.133	160.738
Stationary	100.293	187.823	1.109	157.411
Stationary	98.867	186.398	1.101	156.217
Stationary	101.065	188.595	1.114	158.058
Stationary	188.595	188.595	1.114	158.058
Stationary	178.279	178.279	1.053	149.412
Stationary	166.498	166.498	0.983	139.539
Stationary	172.342	172.342	1.018	144.437
Stationary	166.541	166.541	0.984	139.575
Stationary	169.835	169.835	1.003	142.336
Stationary	163.946	163.946	0.968	137.400
Stationary	165.576	165.576	0.978	138.766
Stationary	162.167	162.167	0.958	135.909
Stationary	163.155	163.155	0.964	136.737
Stationary	160.240	160.240	0.946	134.294
Stationary	163.773	163.773	0.967	137.255
Stationary	161.518	161.518	0.954	135.365
Stationary	161.405	161.405	0.953	135.271
Stationary	161.651	161.651	0.955	135.476
Stationary	161.242	161.242	0.952	135.134
Stationary	158.534	158.534	0.936	132.865
Stationary	165.130	165.130	0.975	138.393
Stationary	160.592	160.592	0.948	134.589
Stationary	157.936	157.936	0.933	132.364

Appendix E: Concentration Profiles

Figure E1: Concentration profiles of raw, corrected, normalized, and final concentrations. Values at top of panels are streamwise distances along working section followed by the OBS probe number (i.e. 65-1 indicates the profile was taken at 65 cm in Figure 2 and OBS probe 1 was used).

Figure E1: Concentration Profiles

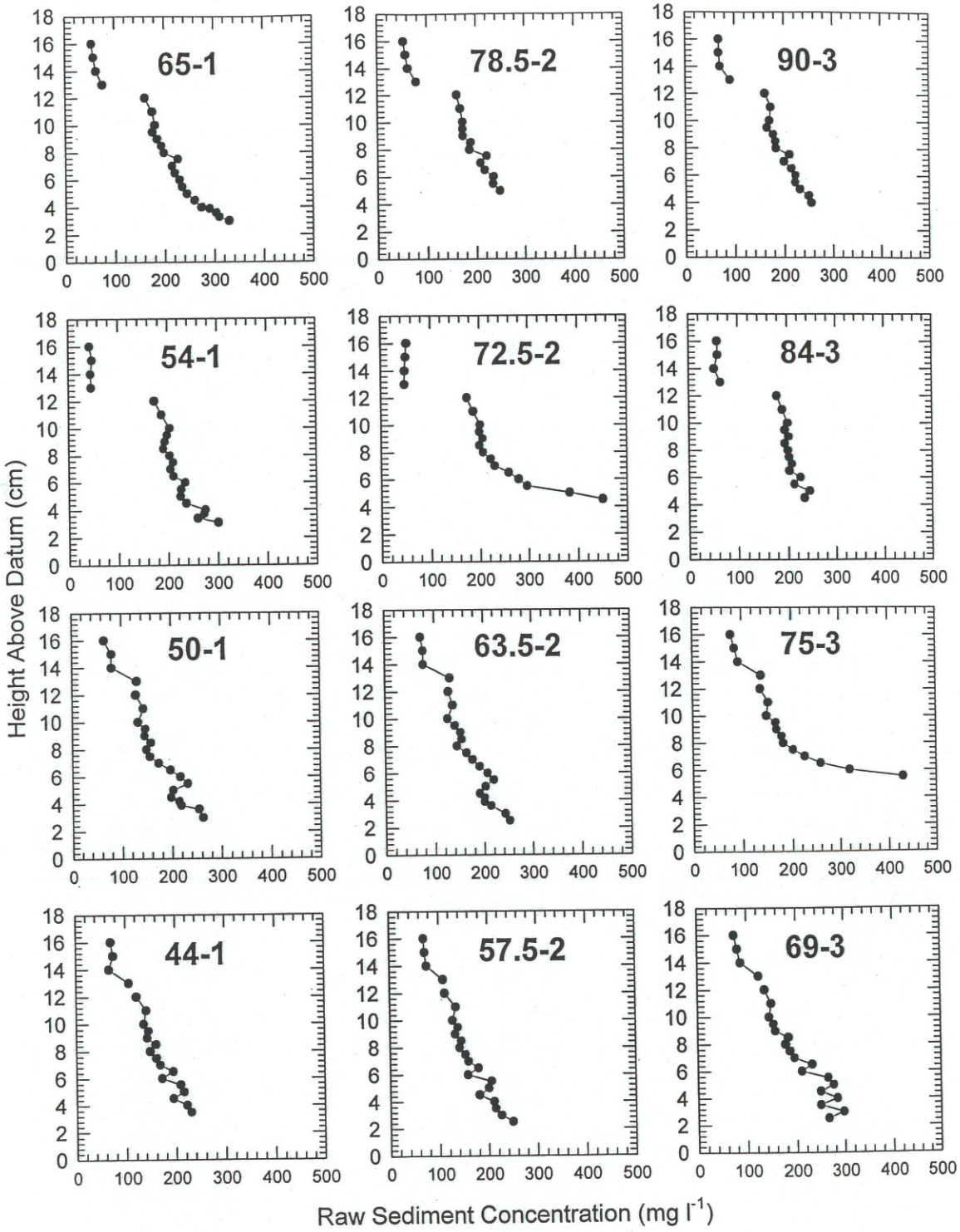


Figure E1: Concentration Profiles

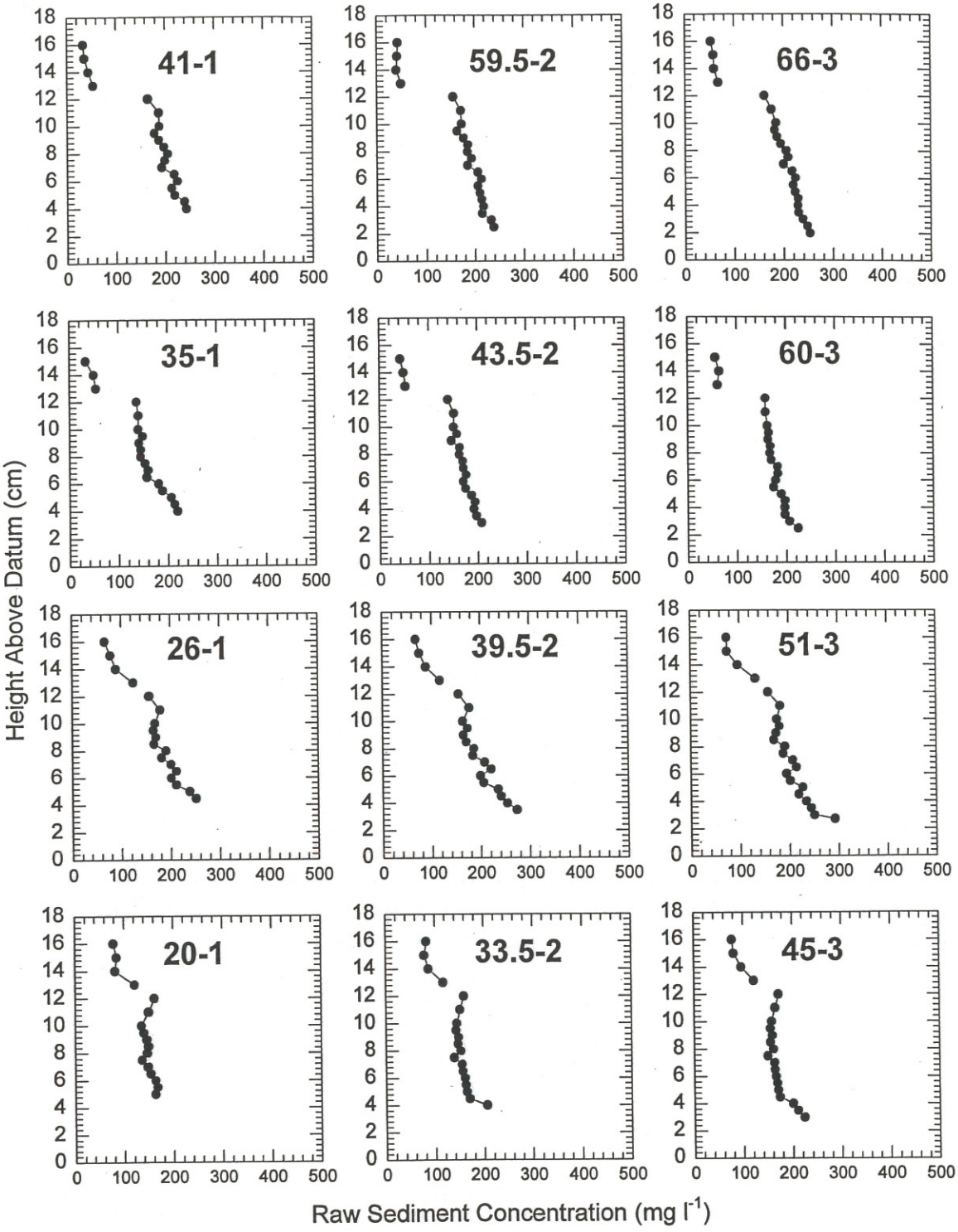


Figure E1: Concentration Profiles

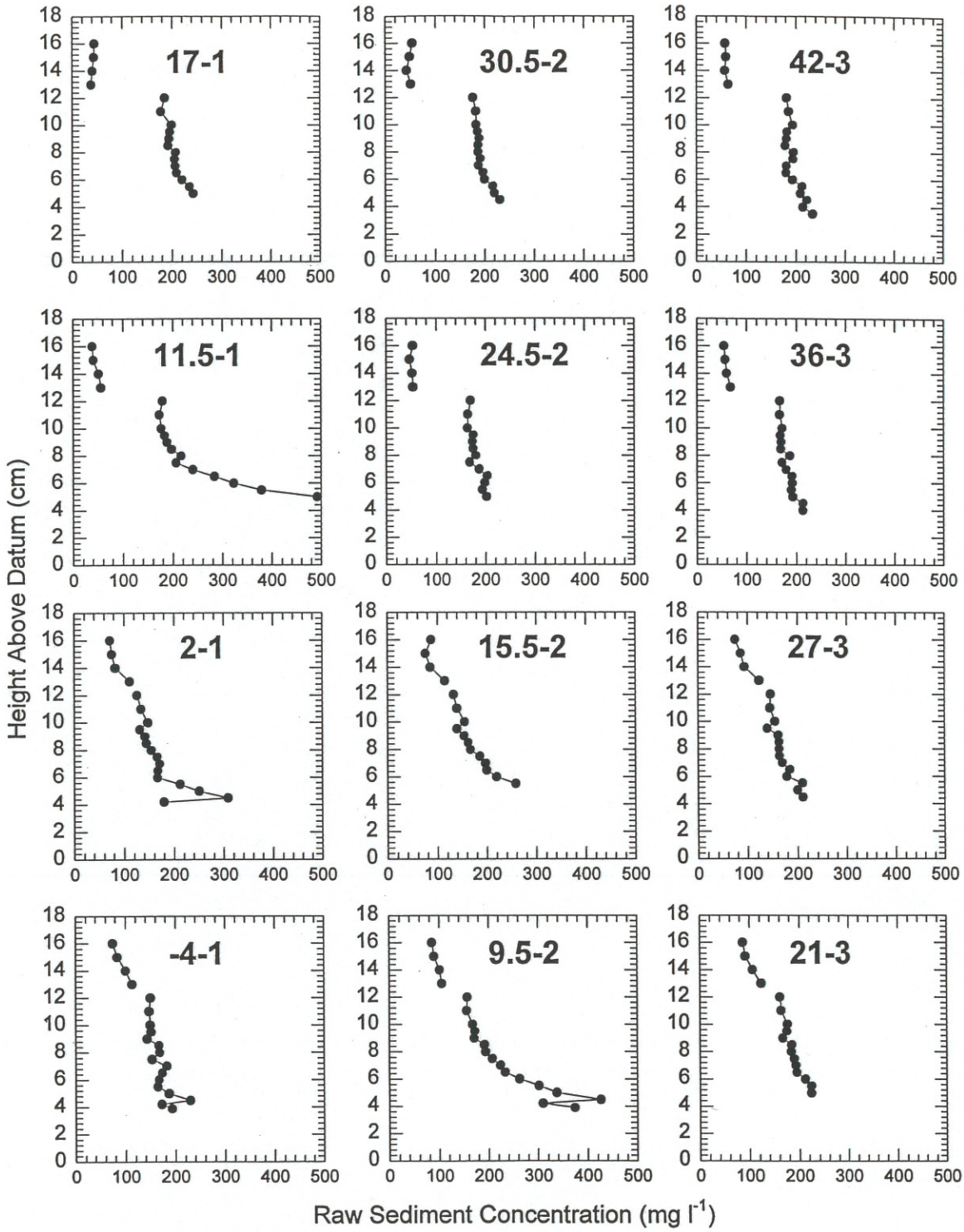


Figure E1: Concentration Profiles

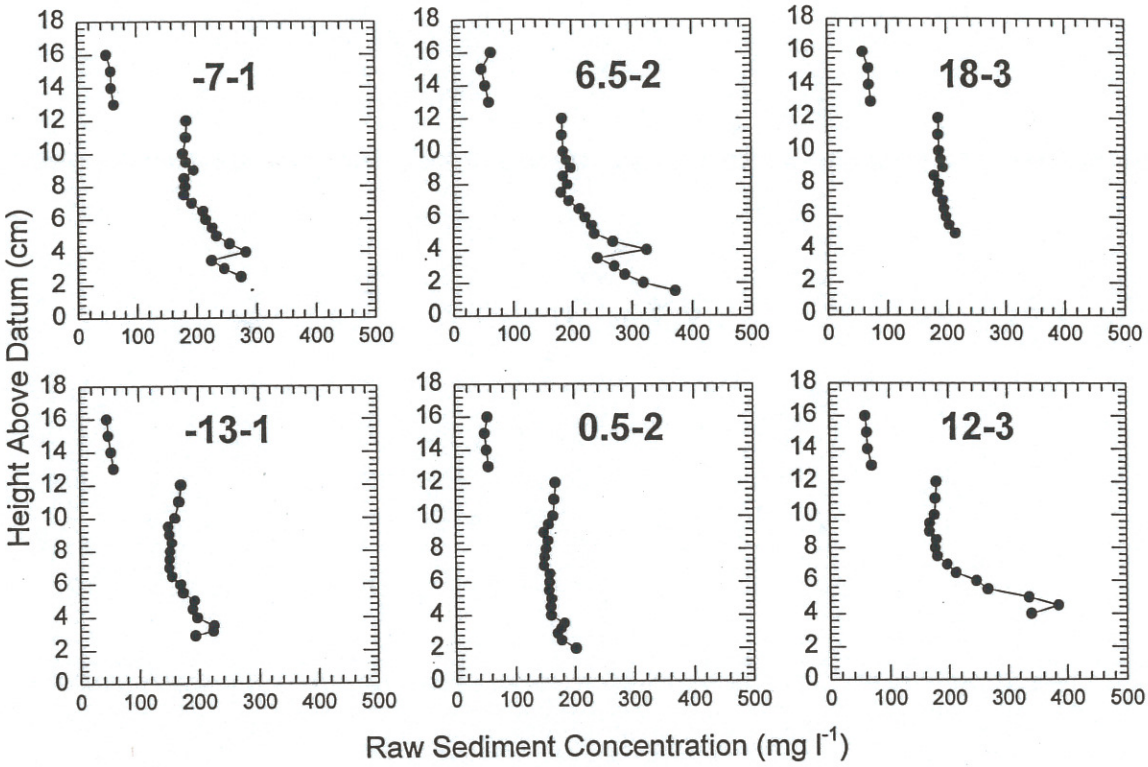


Figure E1: Concentration Profiles

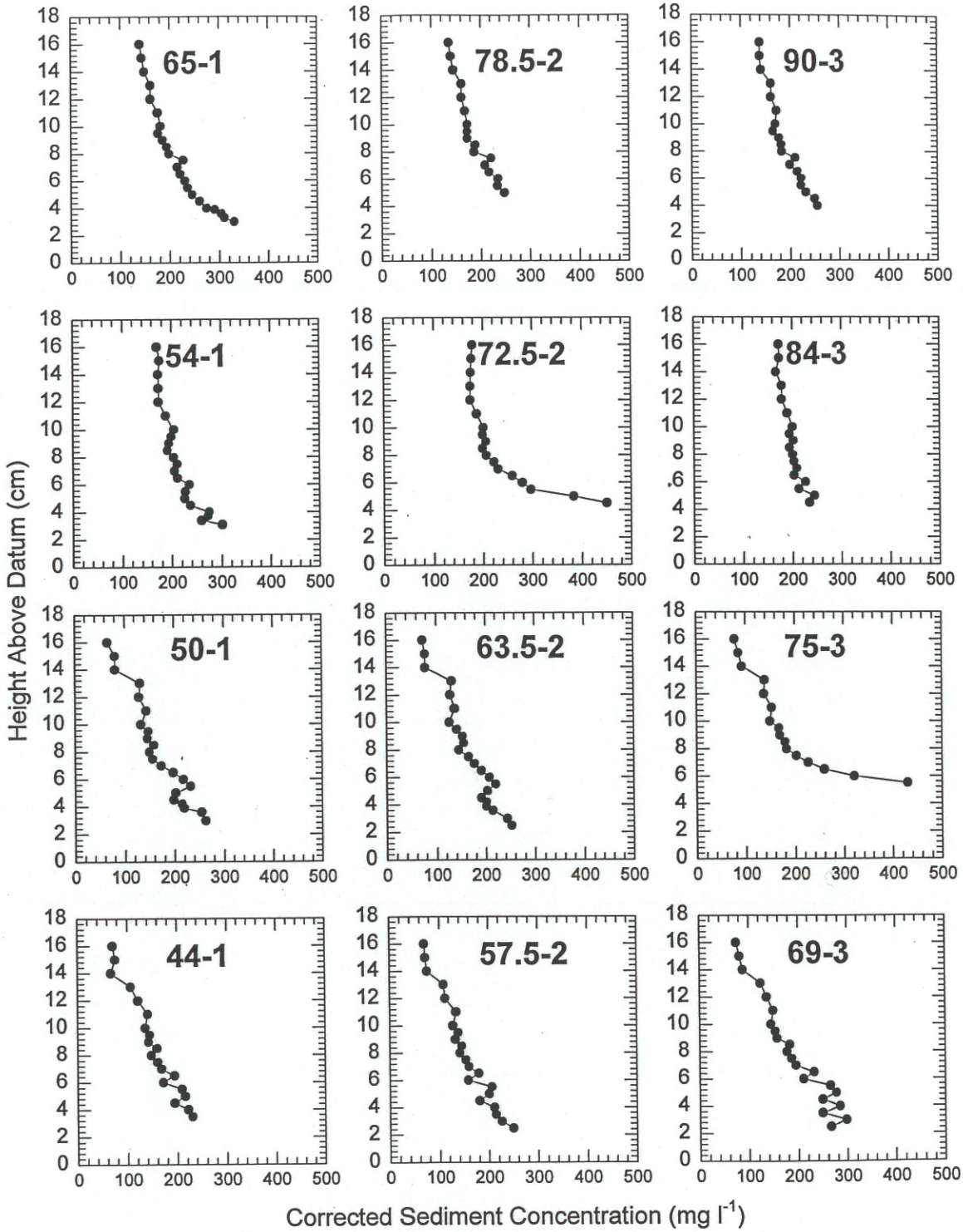


Figure E1: Concentration Profiles

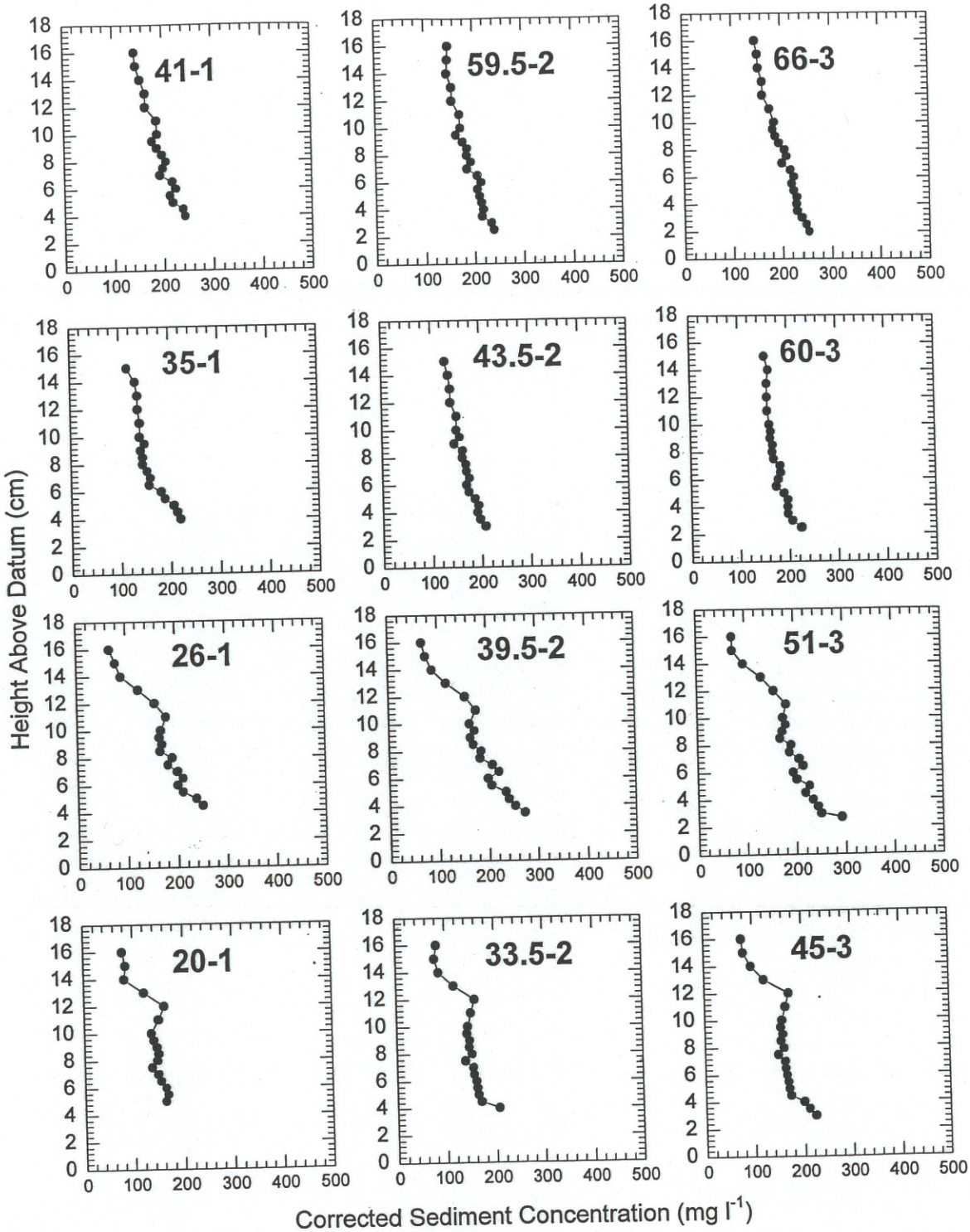


Figure E1: Concentration Profiles

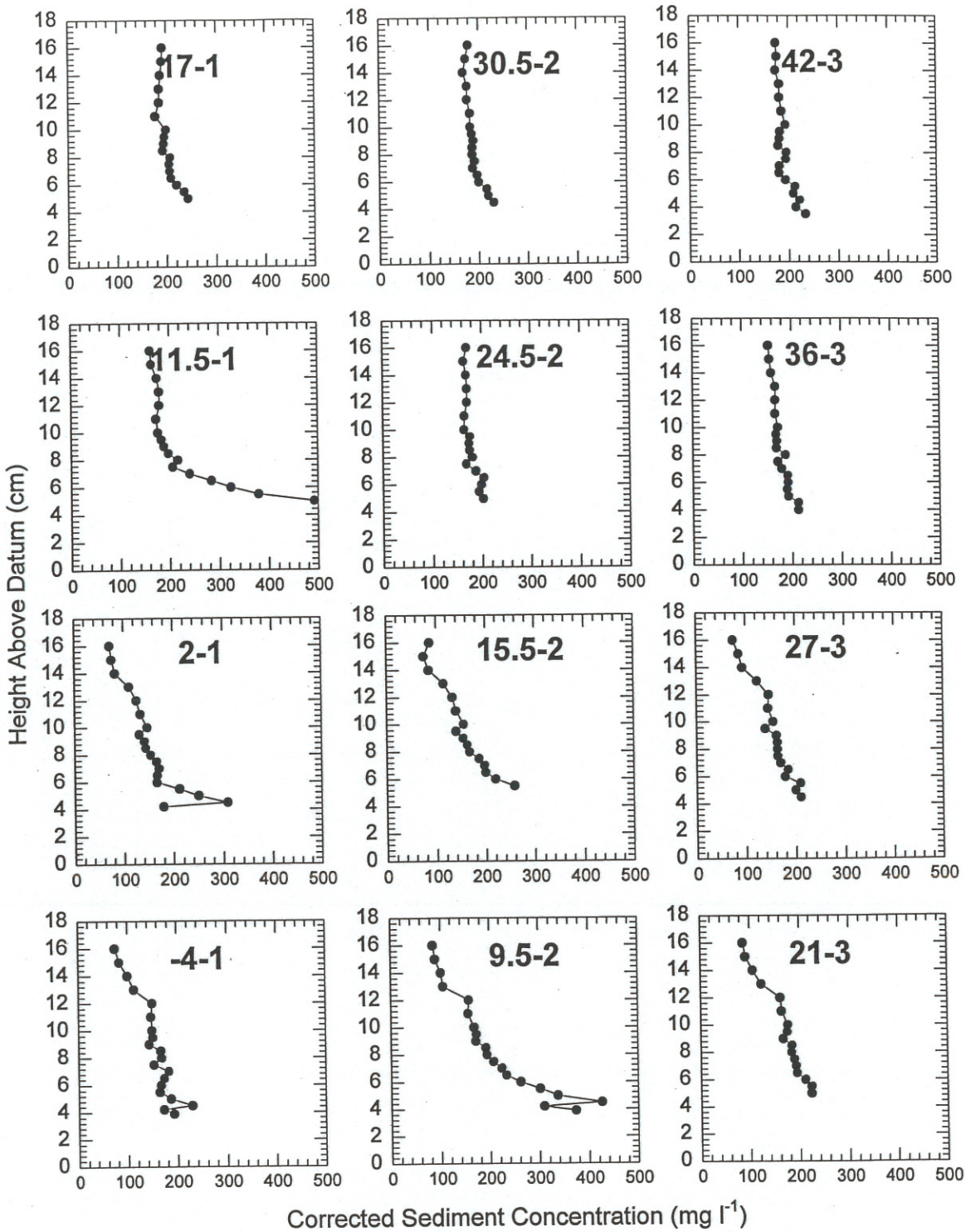


Figure E1: Concentration Profiles

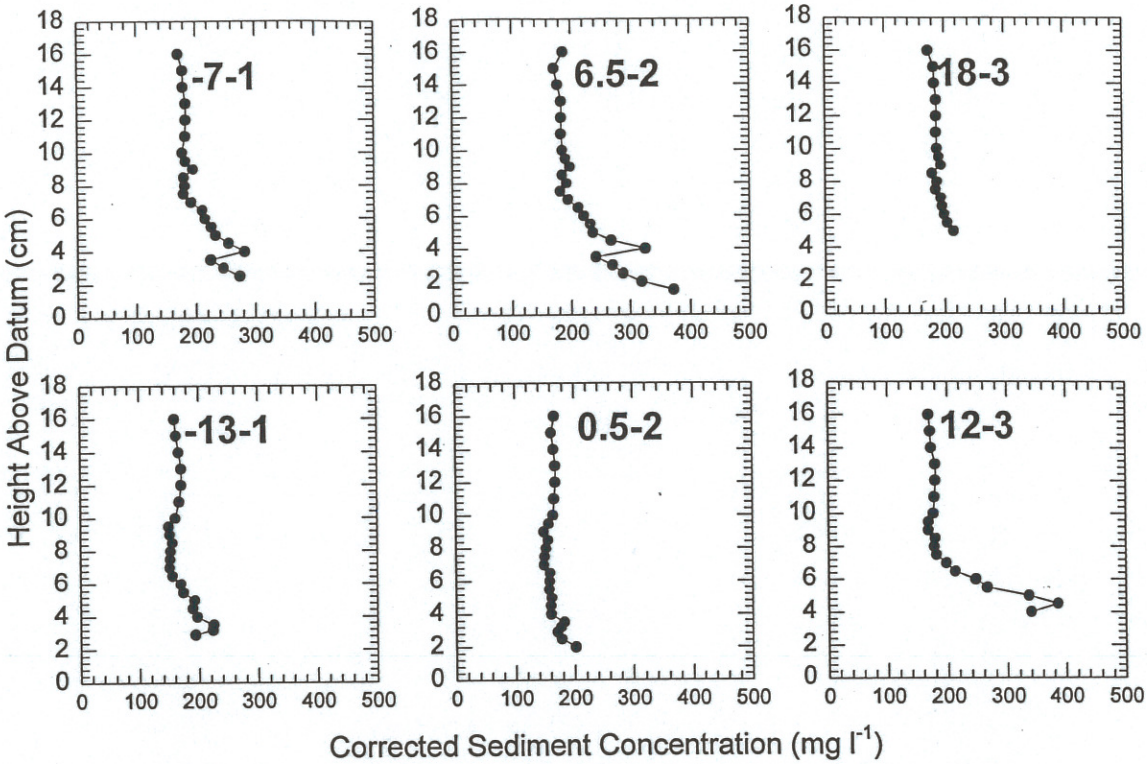


Figure E1: Concentration Profiles

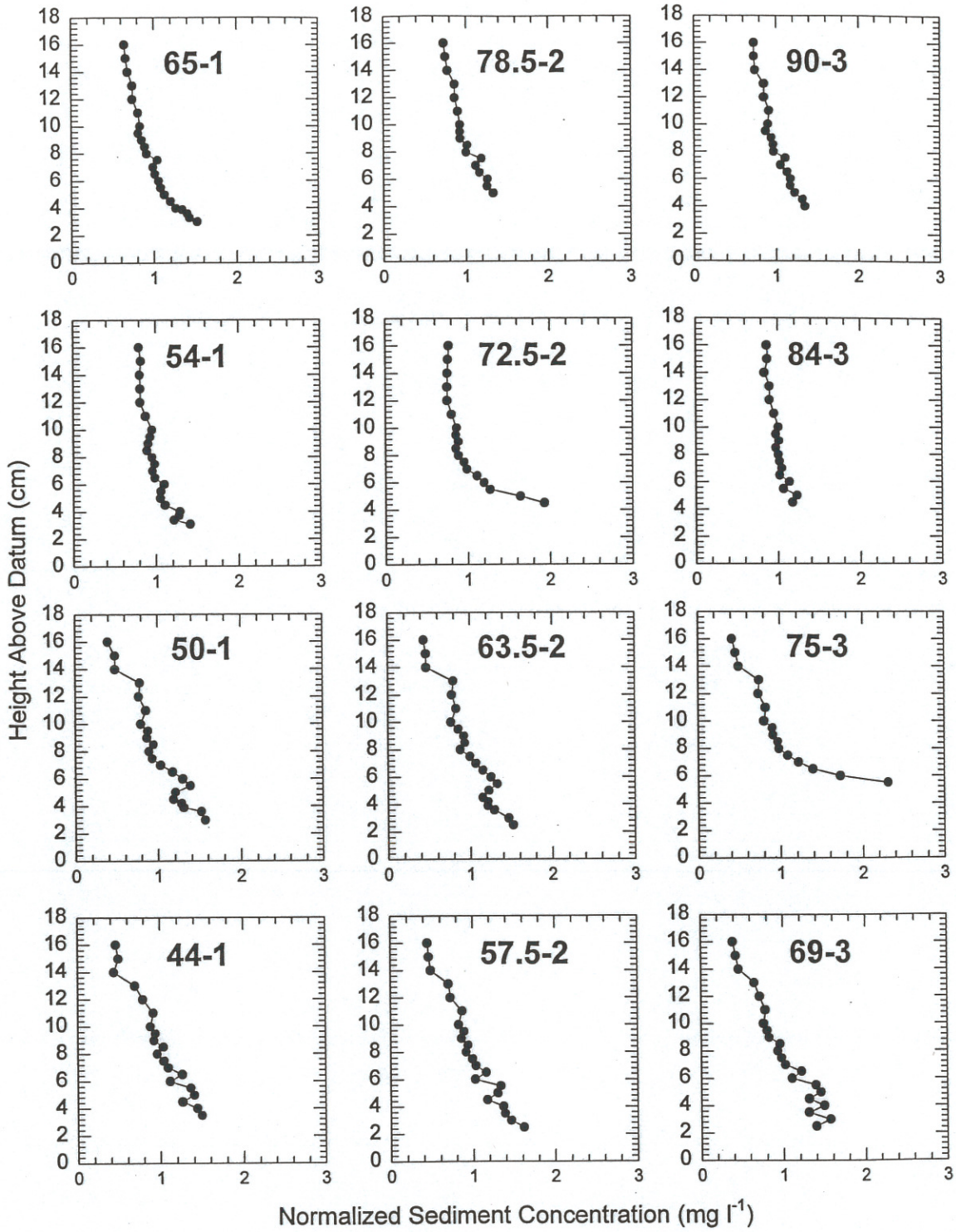


Figure E1: Concentration Profiles

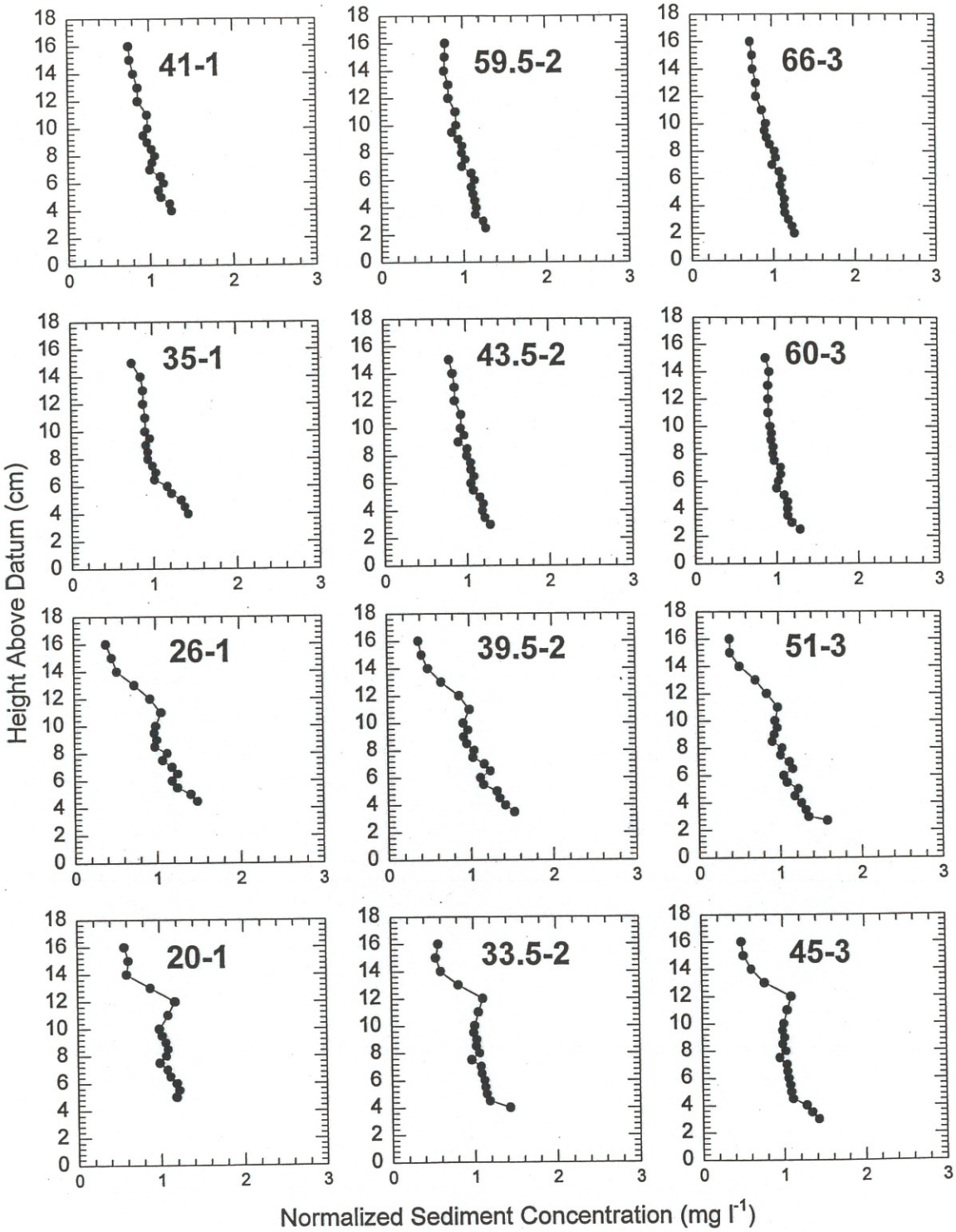


Figure E1: Concentration Profiles

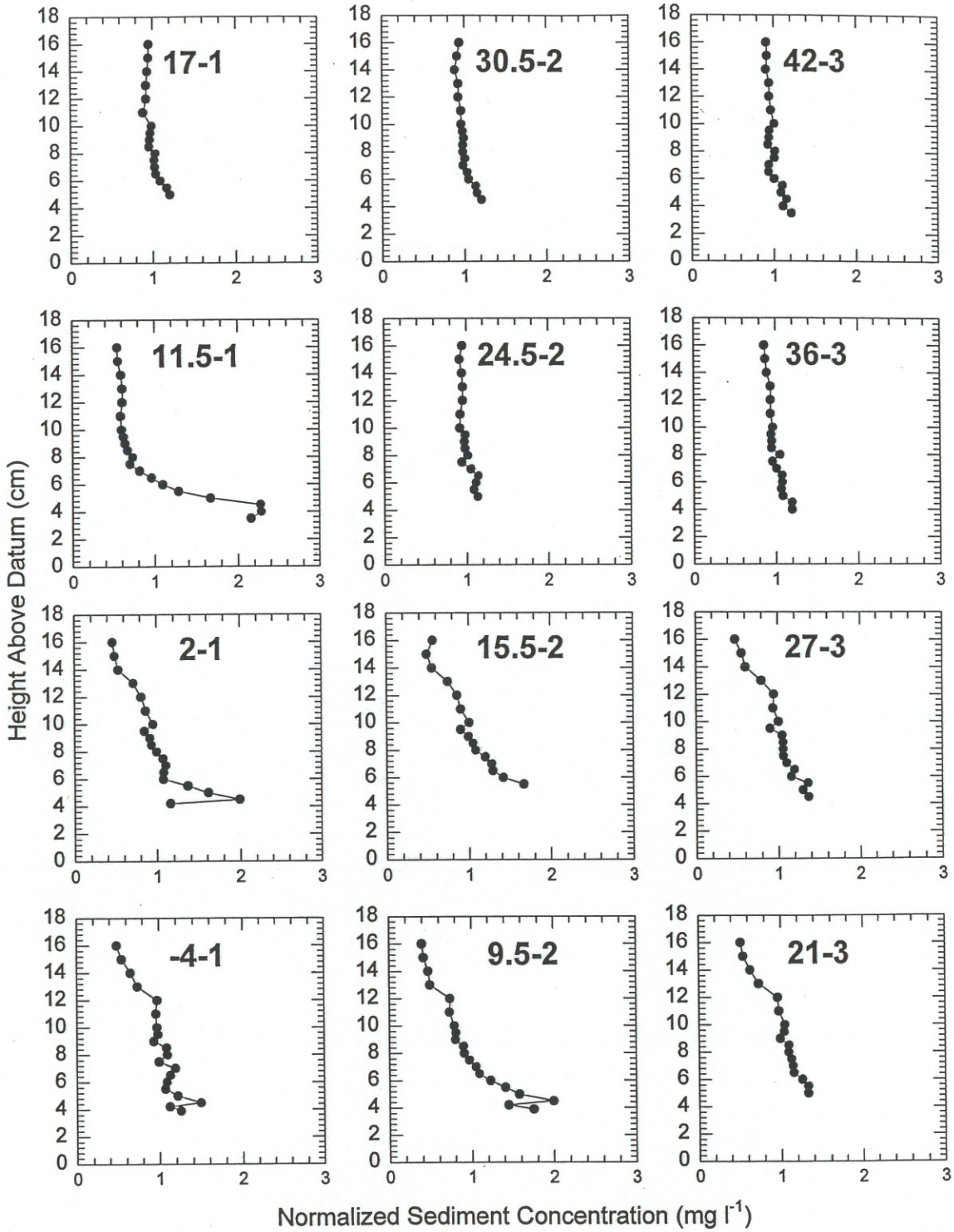


Figure E1: Concentration Profiles

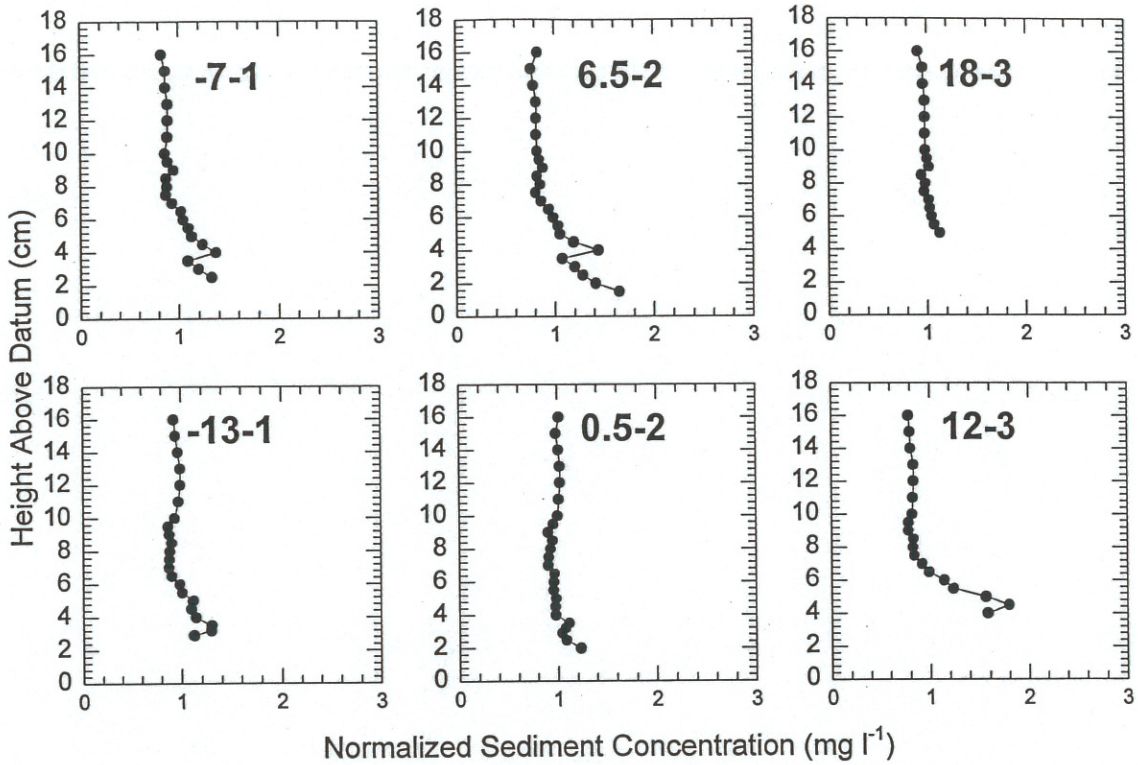


Figure E1: Concentration Profiles

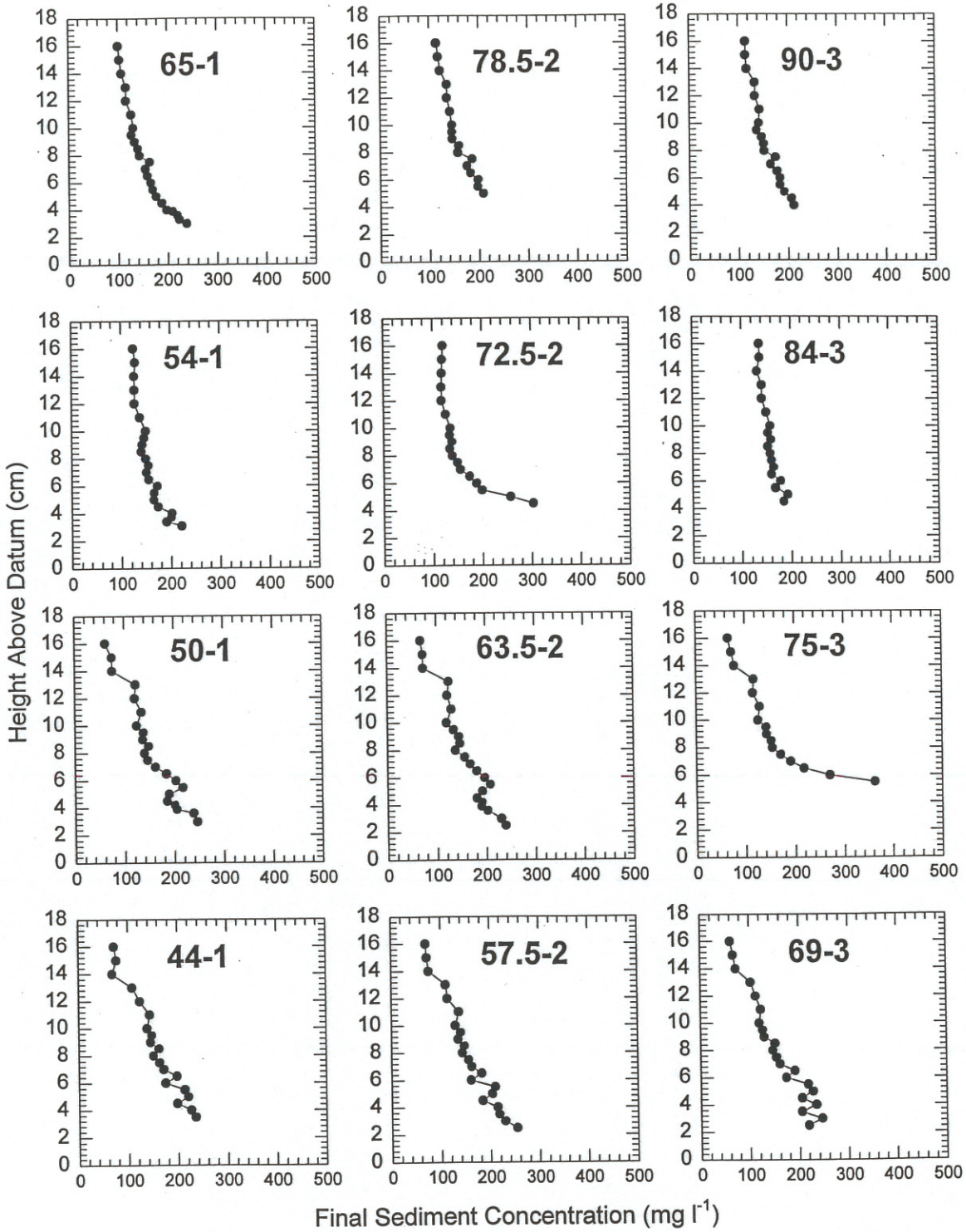


Figure E1: Concentration Profiles

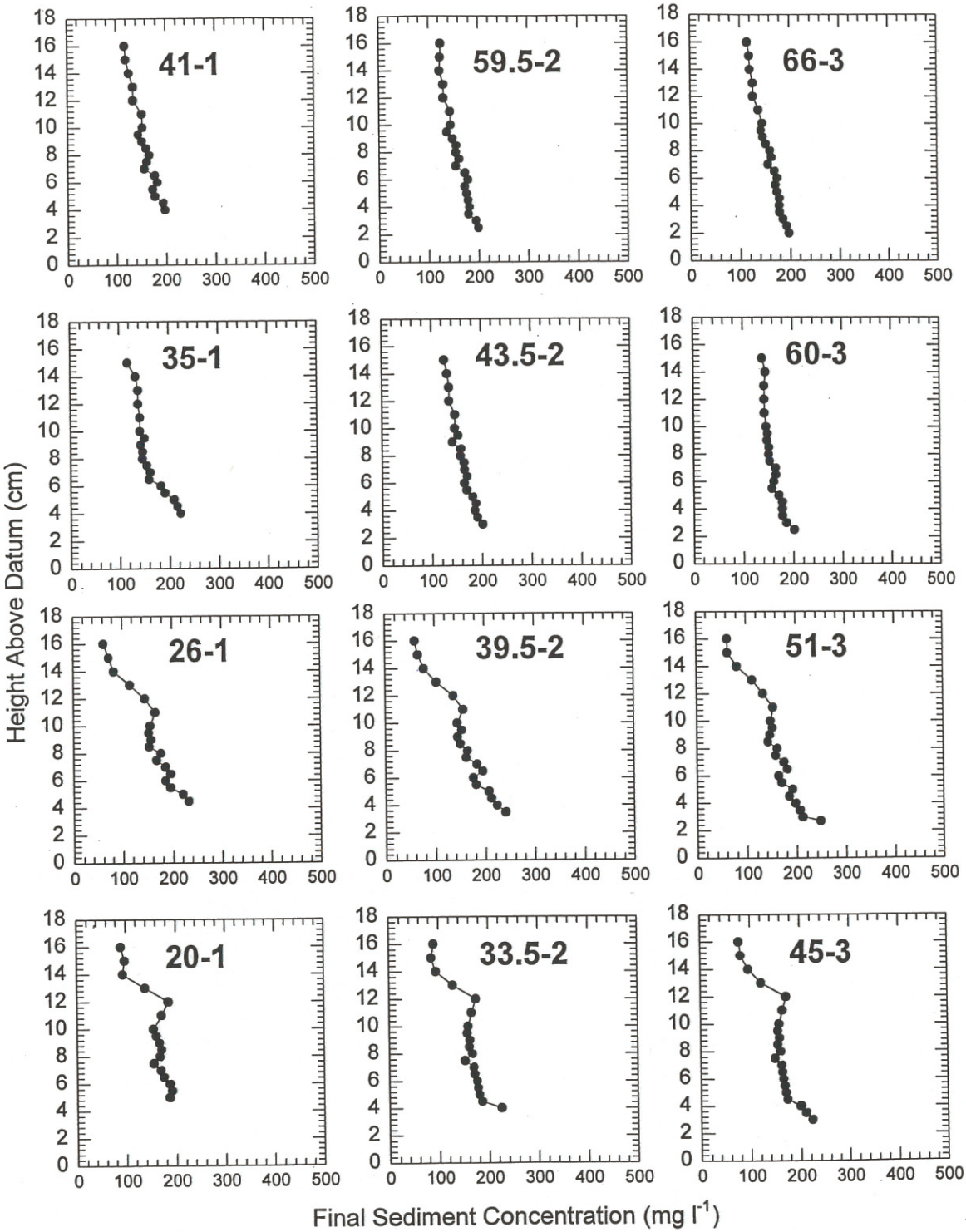


Figure E1: Concentration Profiles

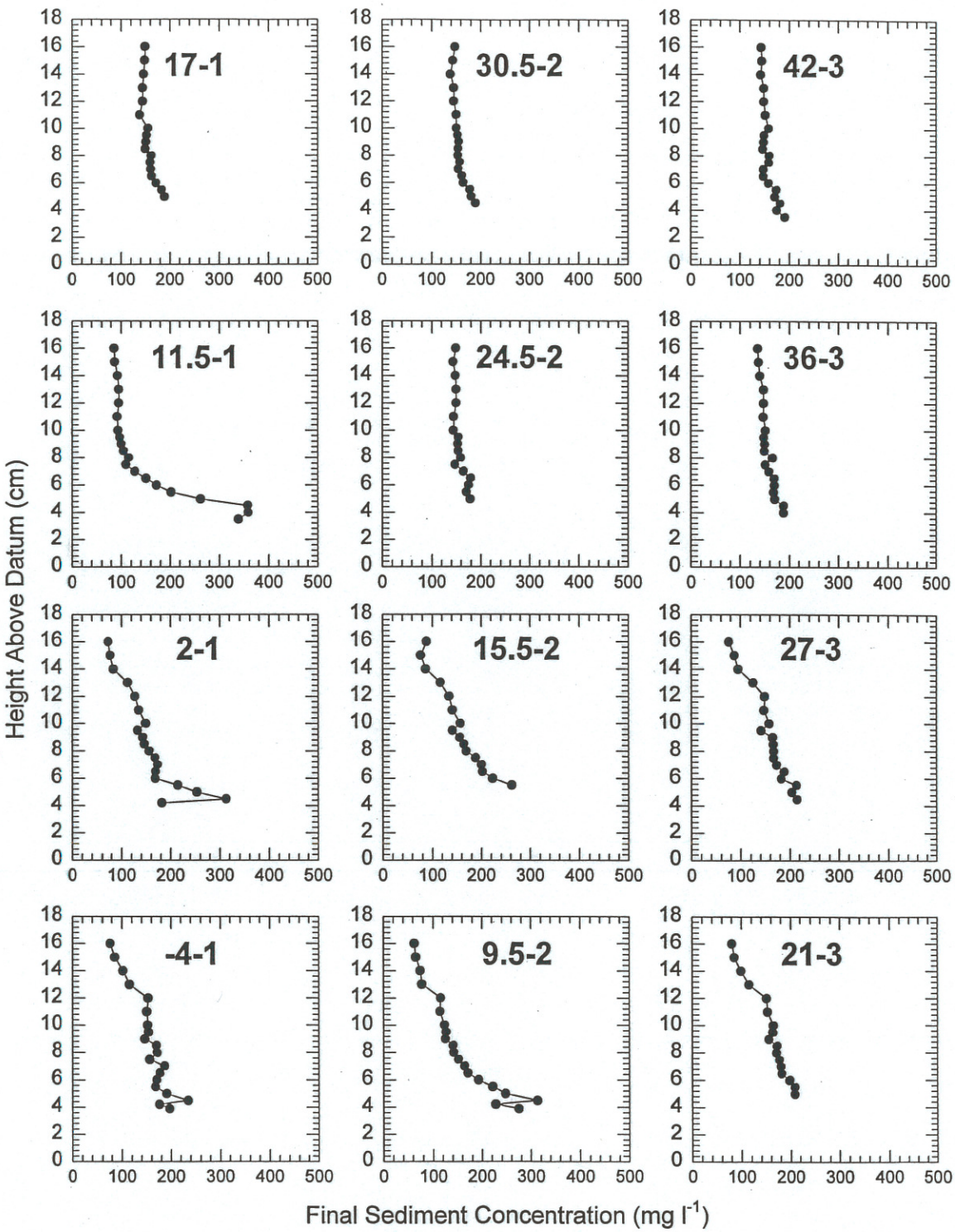
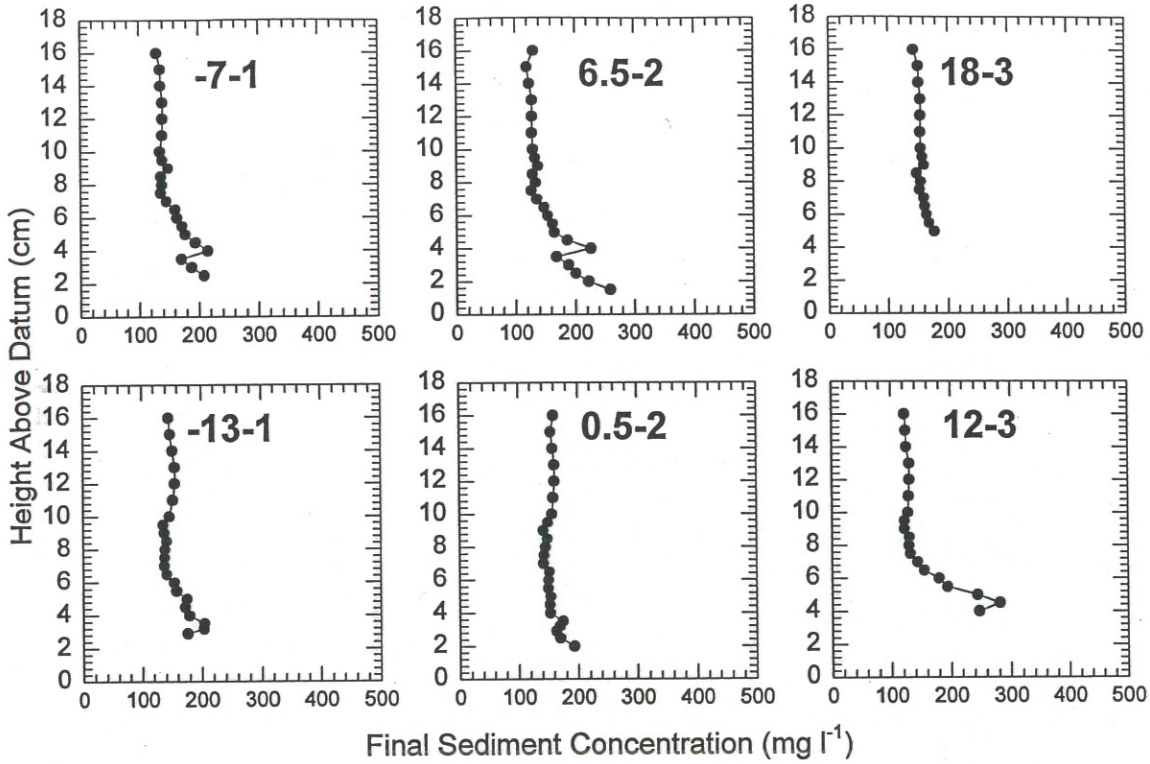


Figure E1: Concentration Profiles



Appendix F: Flow and Concentration Maps

Figure F1: Contour maps of time-averaged turbulence quantities: (a) mean streamwise velocity, (b) mean cross-stream velocity, (c) mean vertical velocity, (d) streamwise root-mean-square velocity, (e) mean cross-stream root-mean-square velocity, (f) mean root-mean-square vertical velocity, (g) Reynolds stress τ_{uw}, (h) Reynolds stress τ_{uv}, (i) Reynolds stress τ_{vw}, (j) streamwise velocity skewness, (k) cross-stream velocity skewness, (l) vertical velocity skewness, (m) boundary layer correlation R_{uw}, (n) boundary layer correlation R_{uv}, (o) boundary layer correlation R_{vw}, (p) Reynolds stress-turbulent kinetic energy correlation Rk_{uw}, (q) Reynolds stress-turbulent kinetic energy correlation Rk_{uv}, (r) Reynolds stress-turbulent kinetic energy correlation Rk_{vw} (s) Streamwise turbulent intensity, (t) Mixing Length, (u) turbulent kinetic energy *TKE*, (v) turbulence production by vertical shear *P*, (w) eddy viscosity ε (diffusivity), and (x) suspended sediment concentration. Flow is from right to left, and horizontal and vertical axes are in cm.

Figure F1: Flow and Concentration Maps

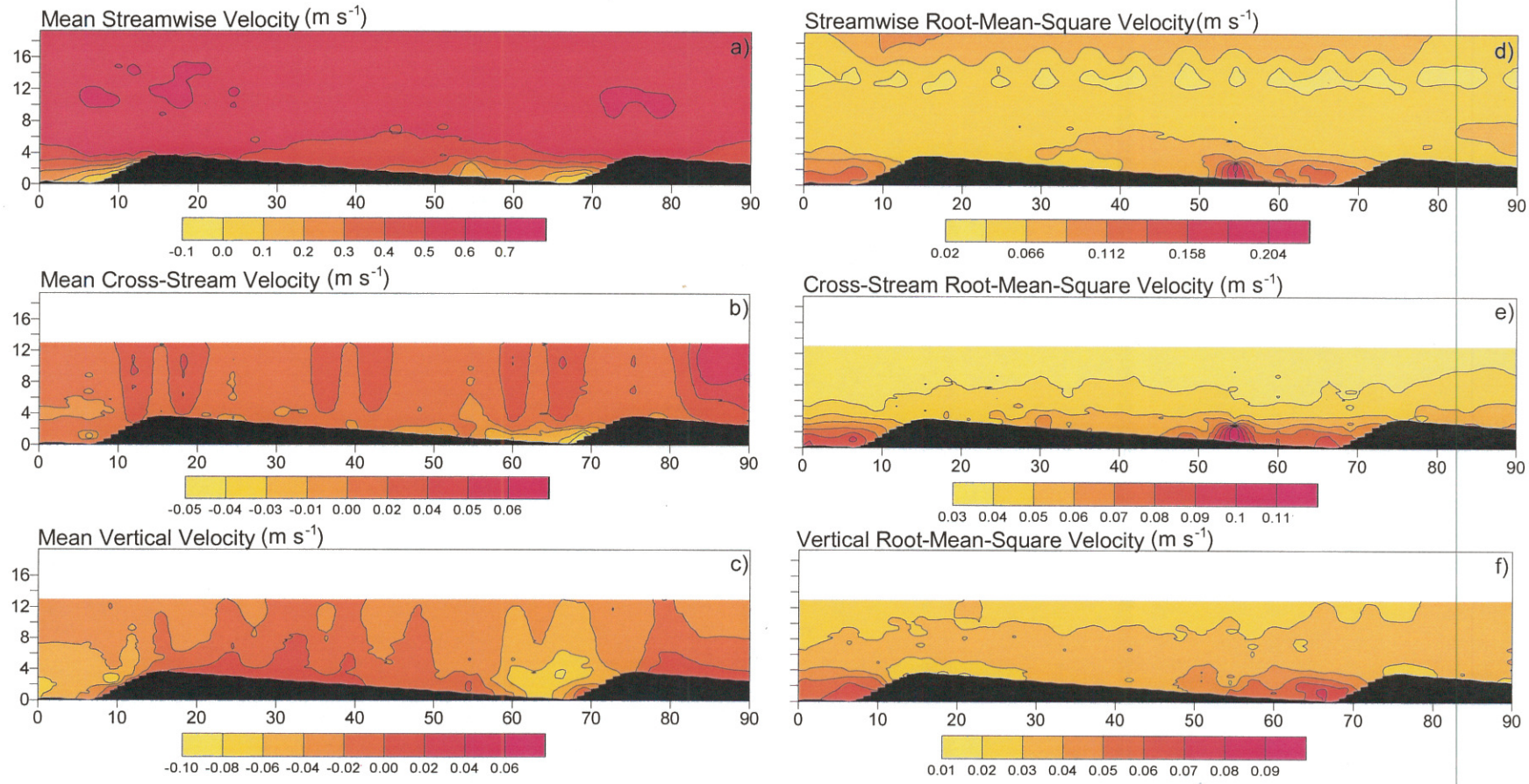


Figure F1: Flow and Concentration Maps

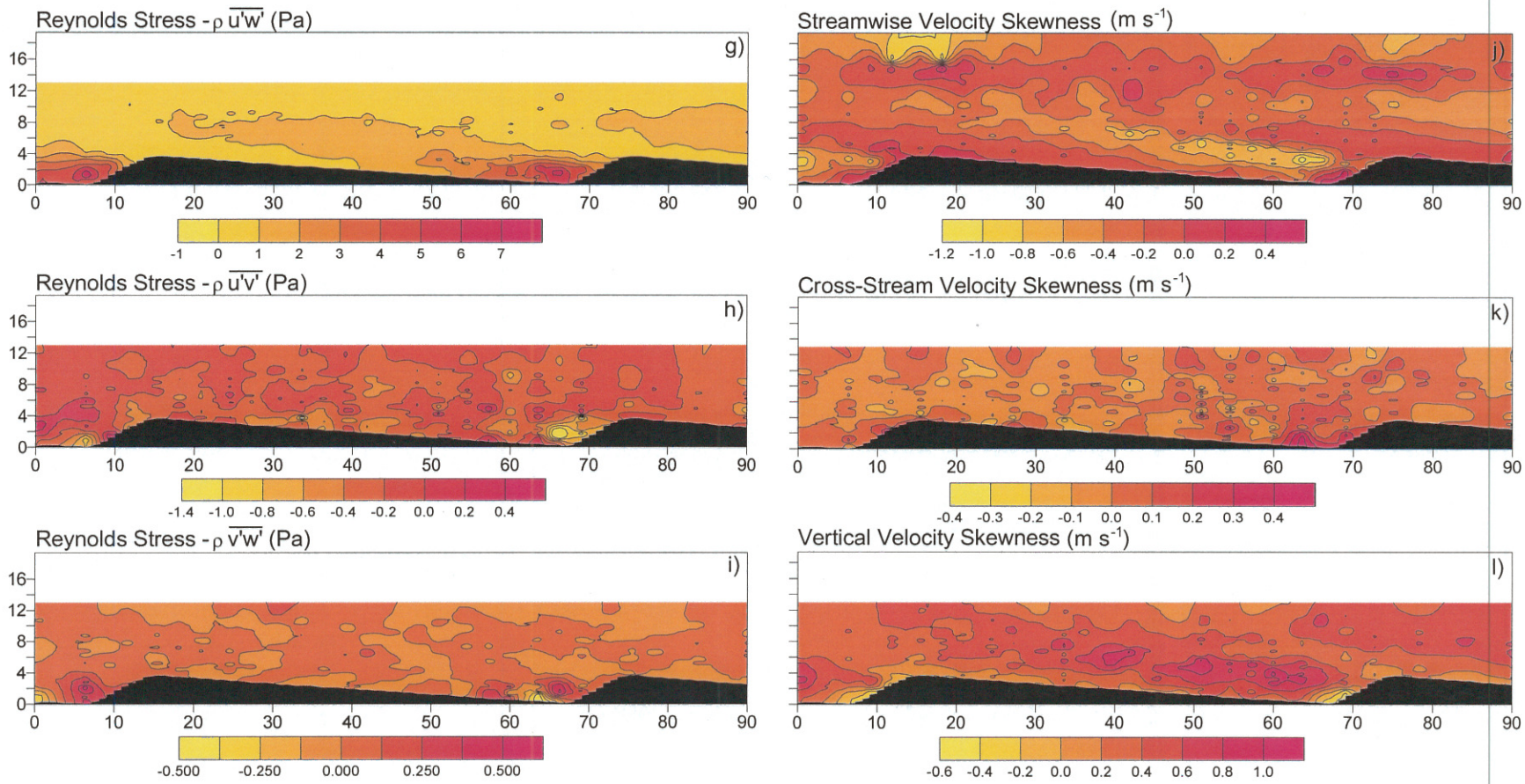


Figure F1: Flow and Concentration Maps

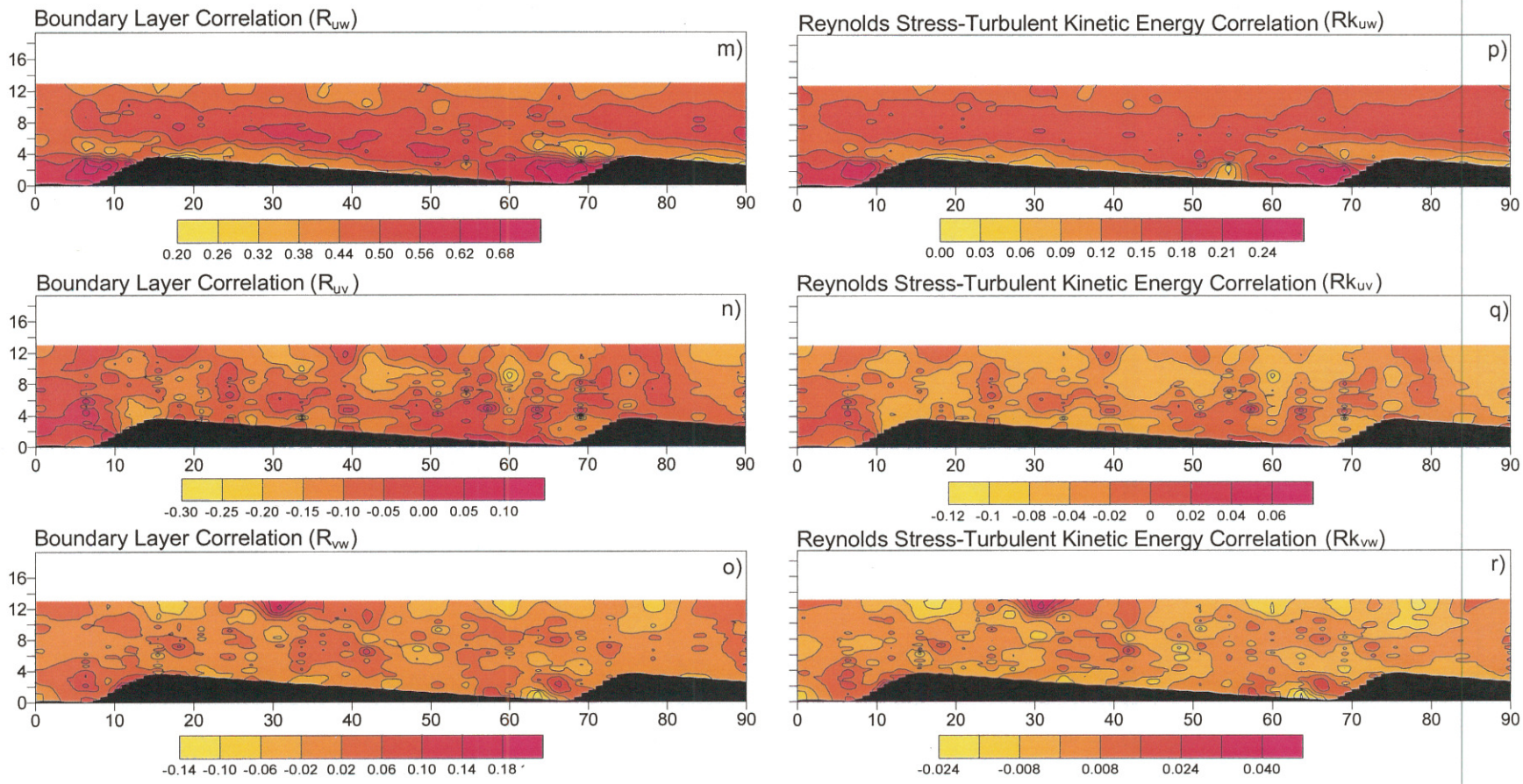
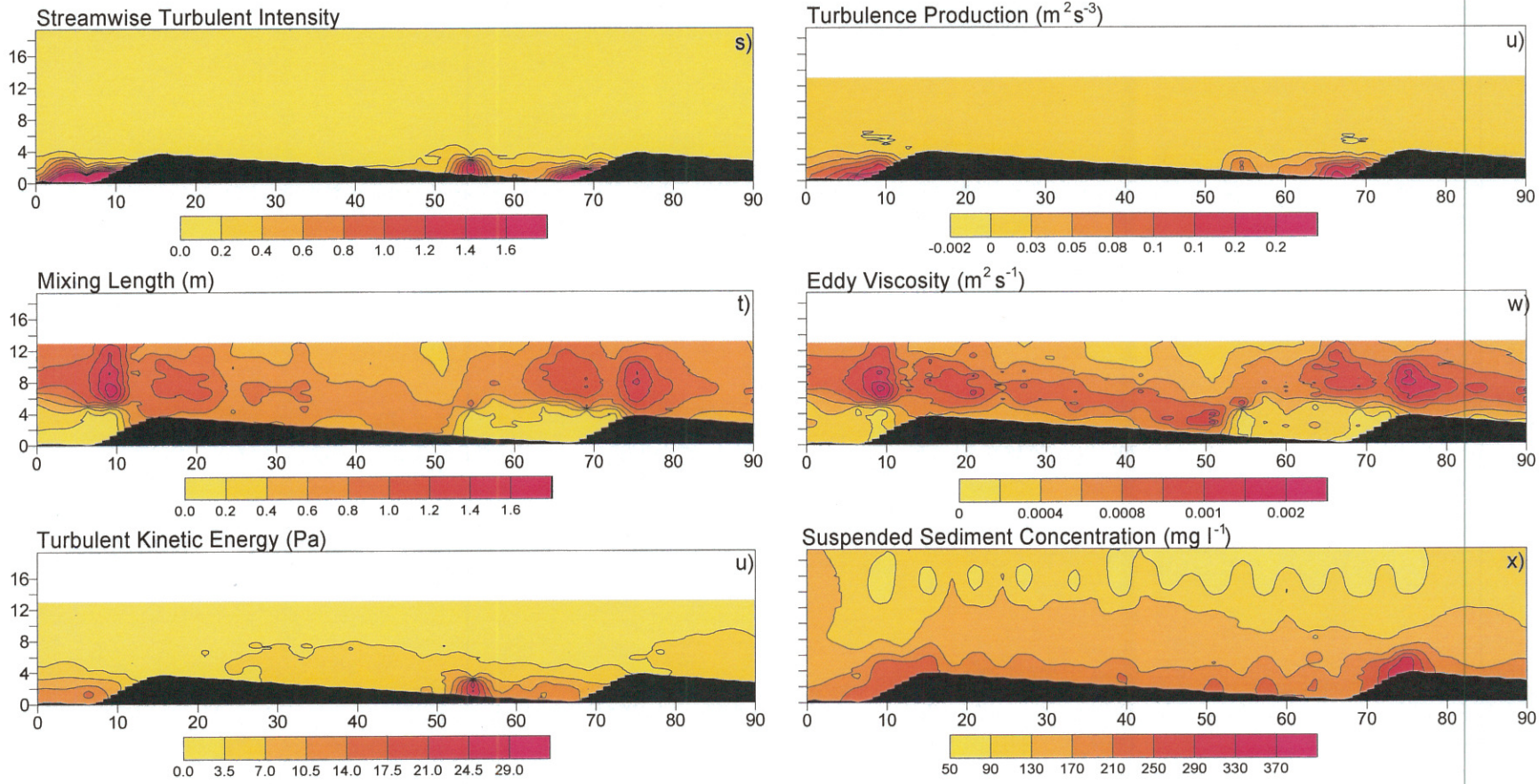


Figure F1: Flow and Concentration Maps



Appendix G: Time-Series Used in Time-Series Analysis

Figure G1: Time-series used for the more detailed time series analysis. U, V, and W refer to the streamwise, cross-stream and vertical velocity directions respectively. C refers to concentration. Labels at the top of each page indicate the height above the dune trough and the concentration or velocity component (i.e. time-series 12-C means 12 cm above the dune trough and that this is a concentration time-series). Numbers in the left-hand panels of the plots (i.e. 90, 84, 78.5, etc.) are streamwise distances along working section (see Figure 2).

Figure G1: Time-Series used in Time-Series Analysis

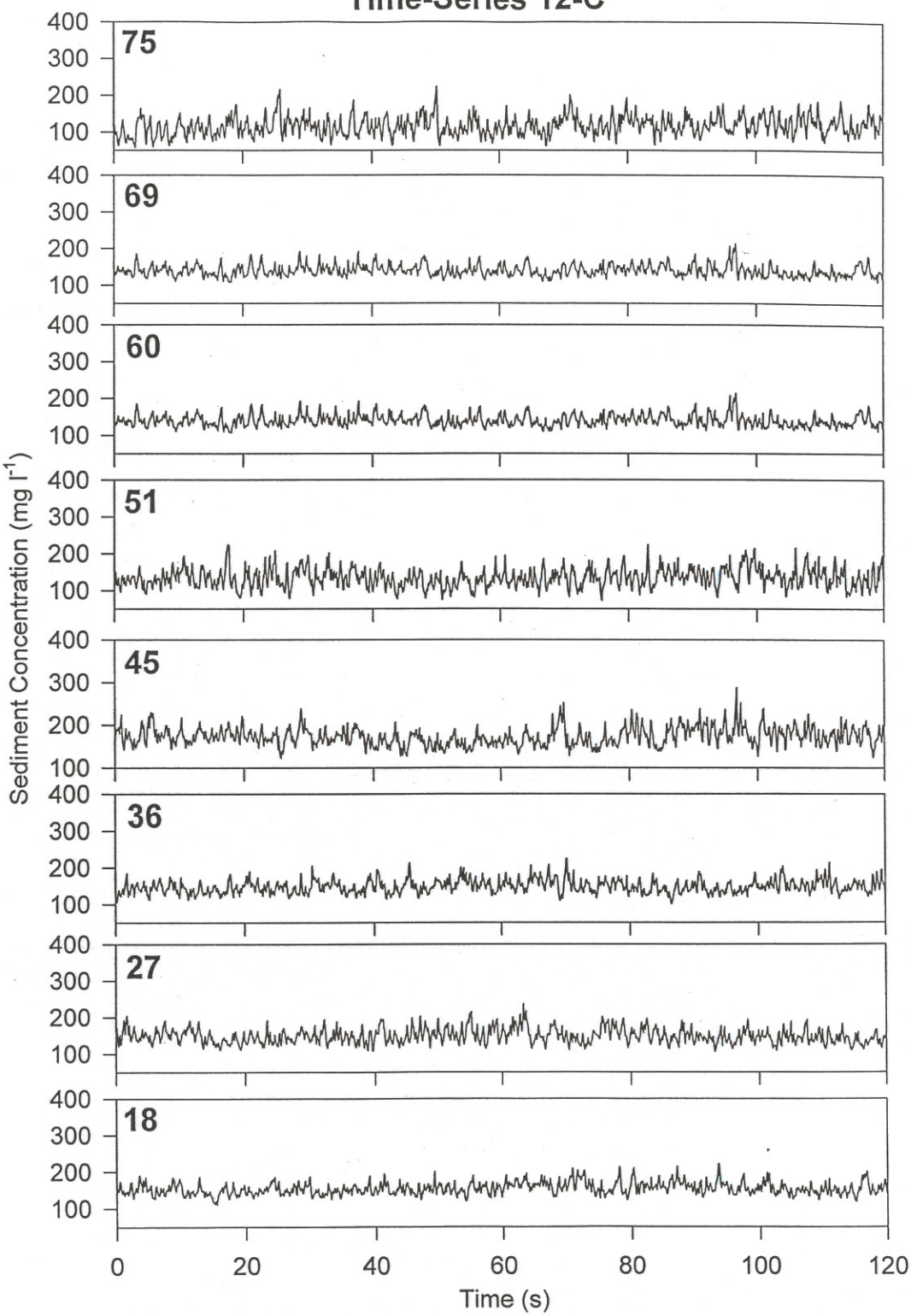


Figure G1: Time-Series used in Time-Series Analysis

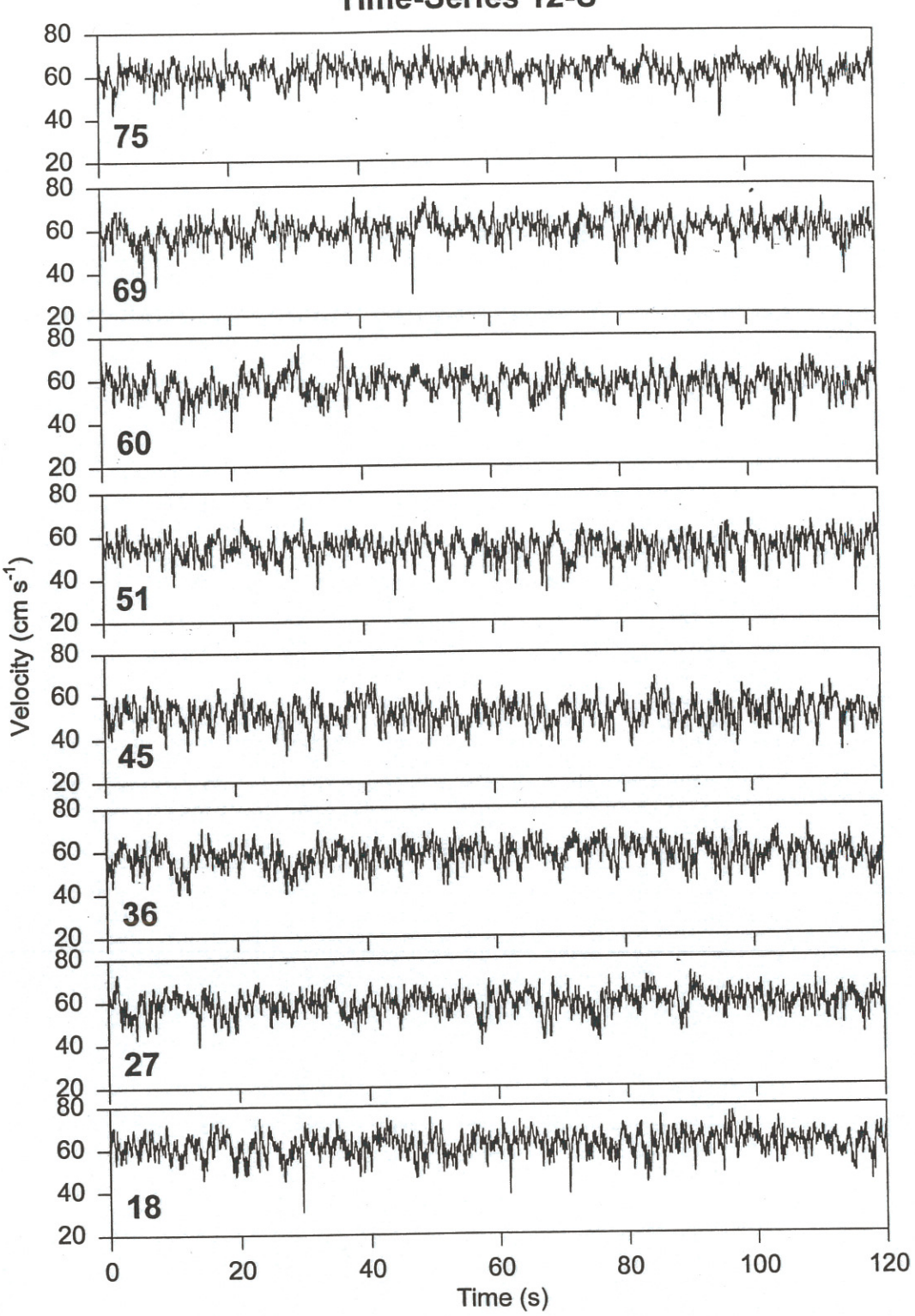


Figure G1: Time-Series used in Time-Series Analysis

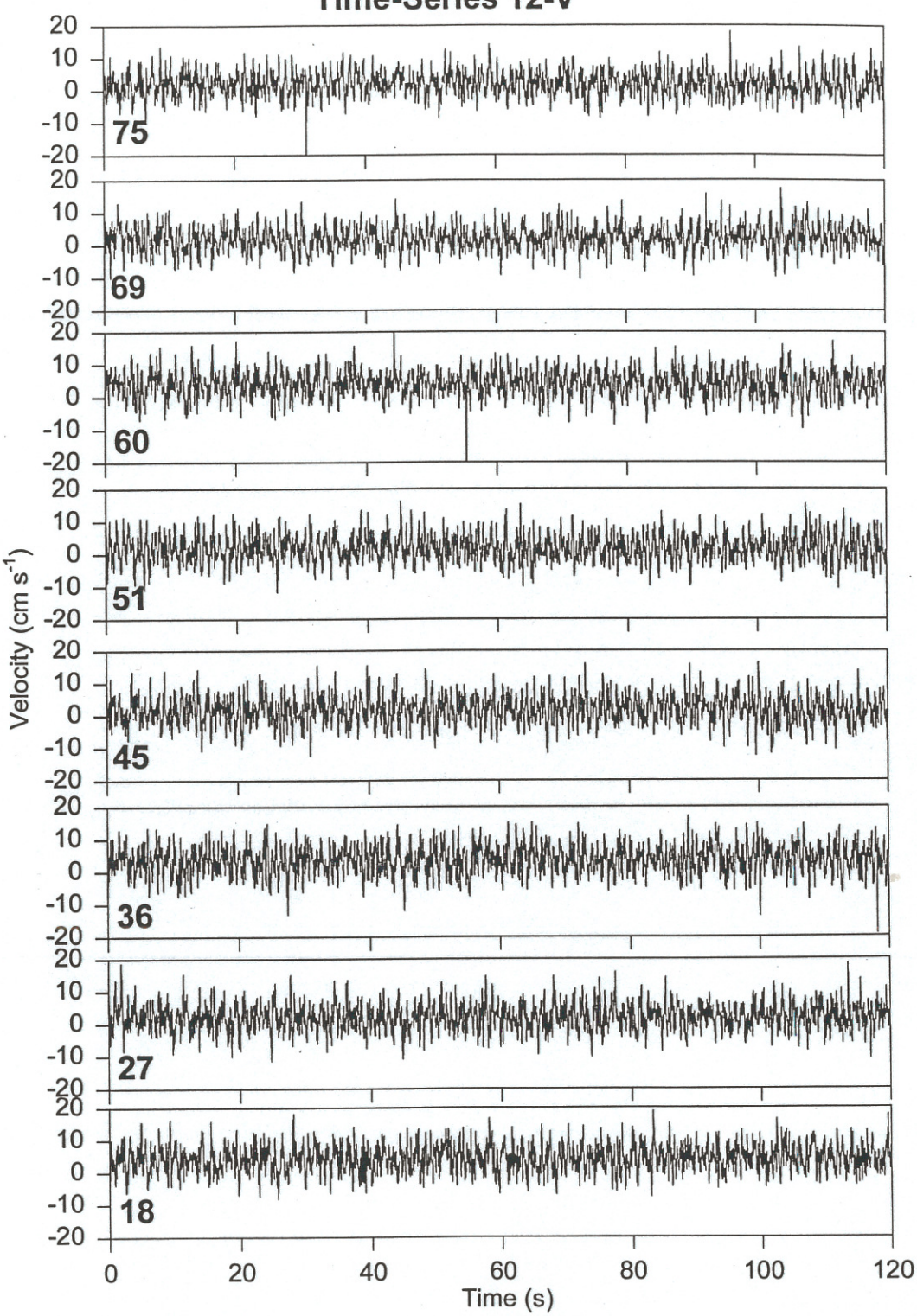


Figure G1: Time-Series used in Time-Series Analysis

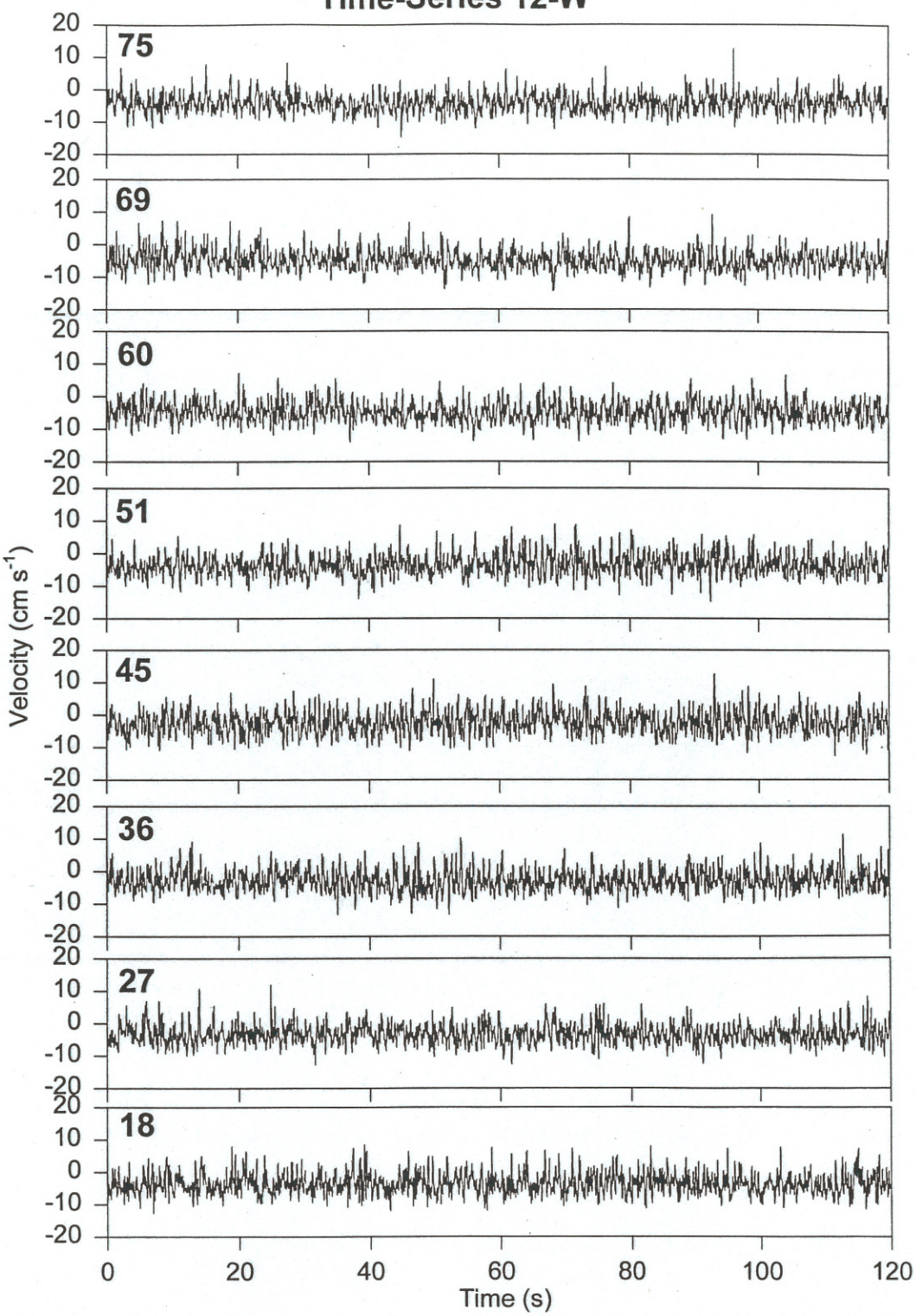


Figure G1: Time-Series used in Time-Series Analysis

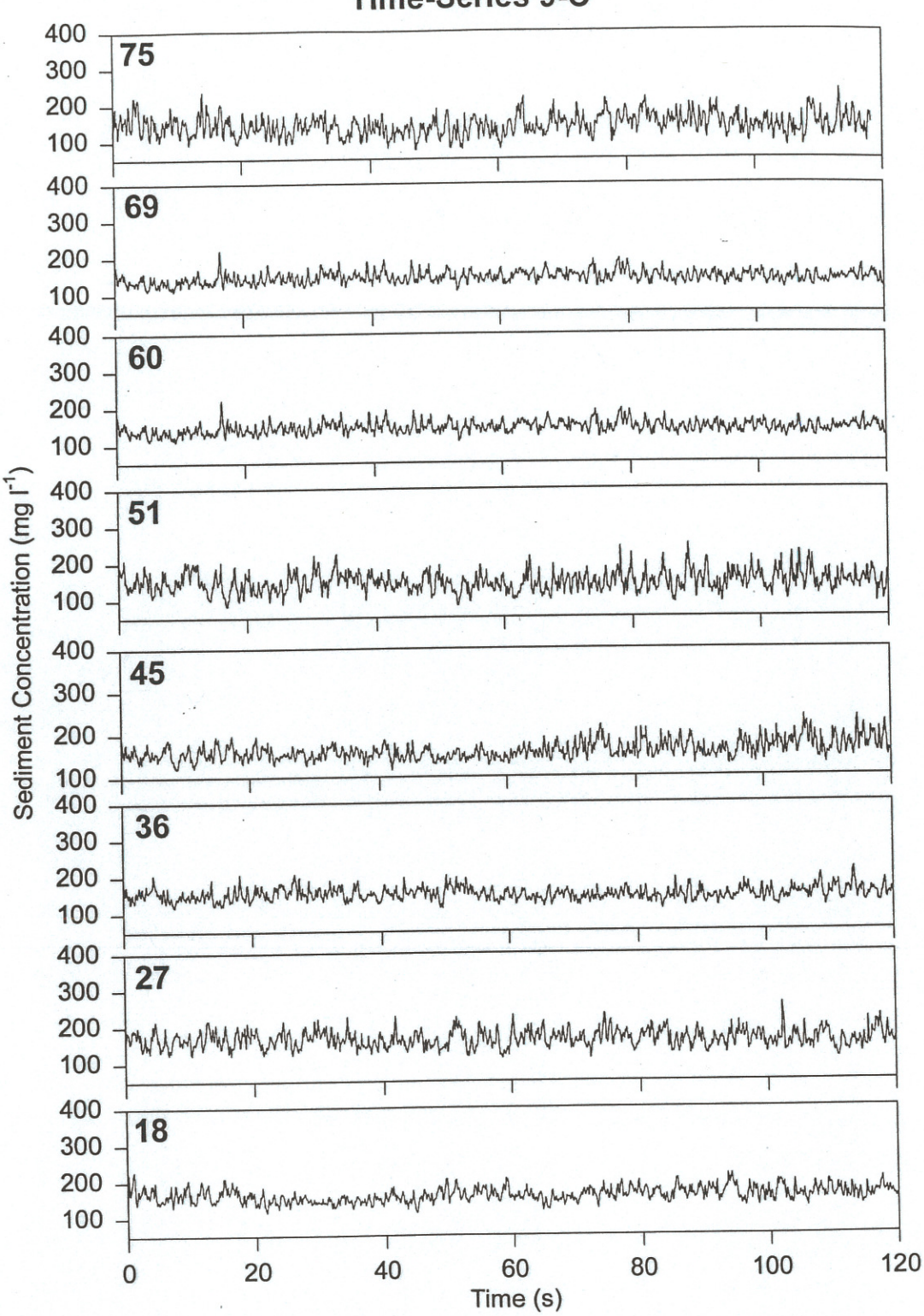


Figure G1: Time-Series used in Time-Series Analysis

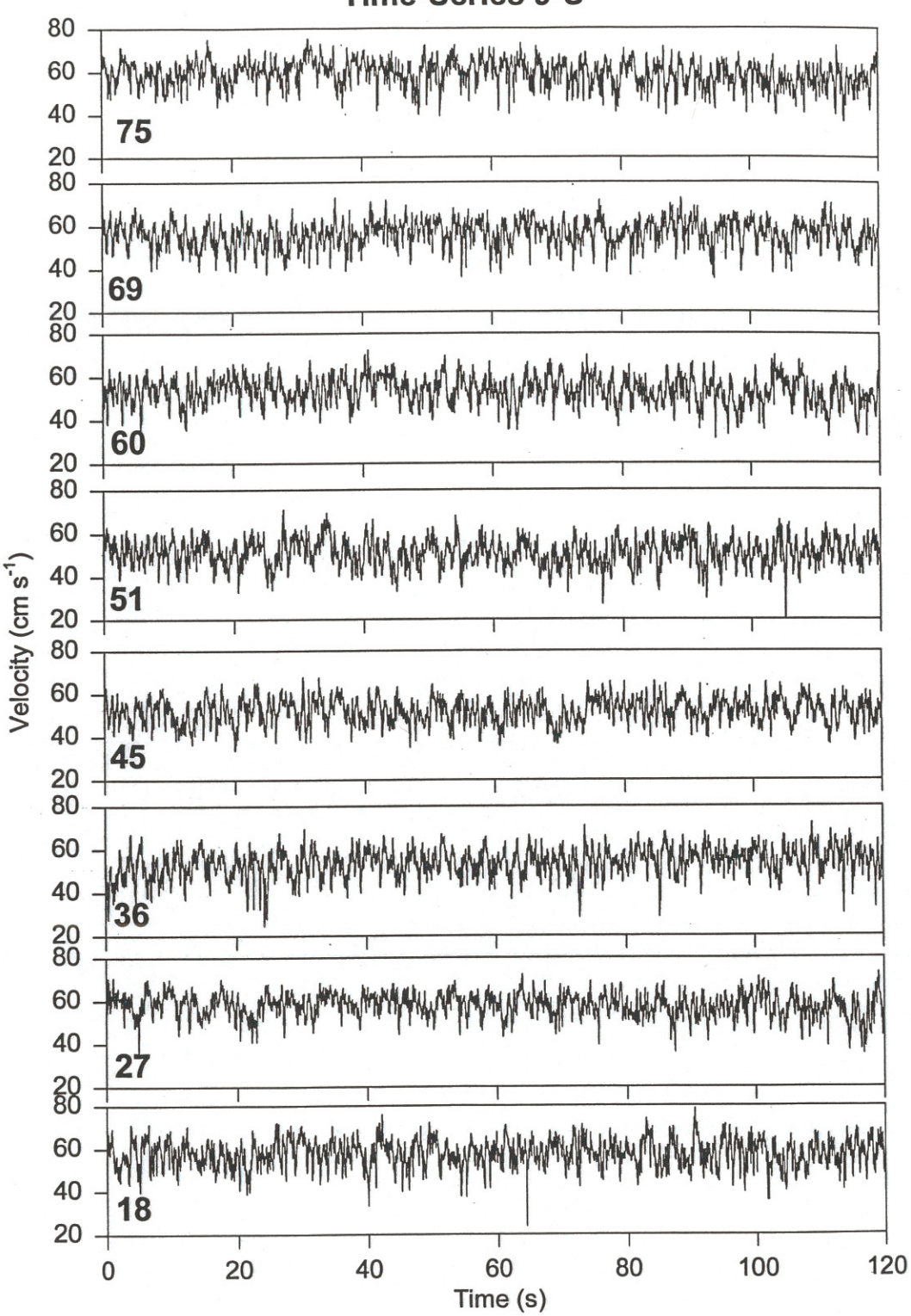


Figure G1: Time-Series used in Time-Series Analysis

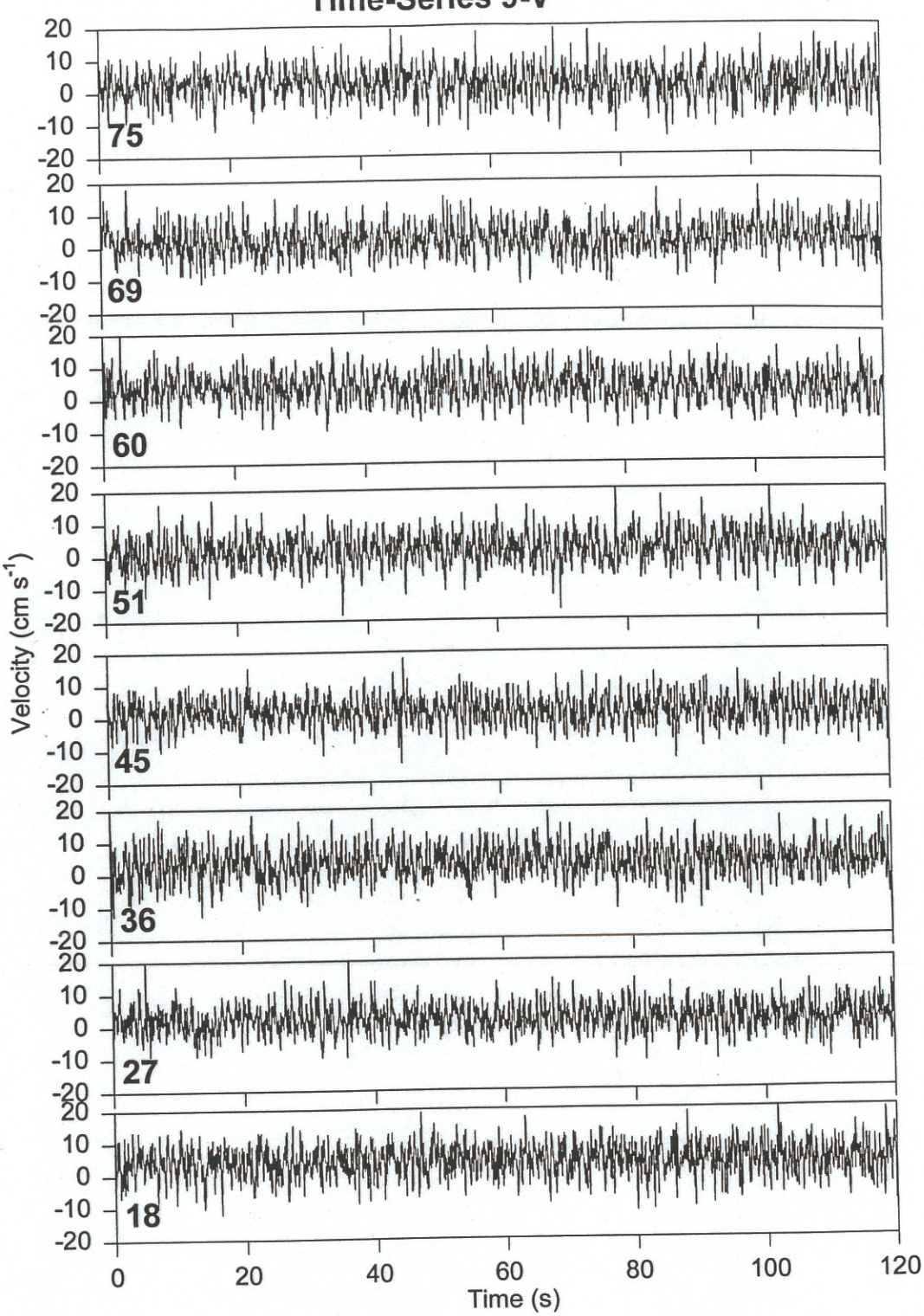


Figure G1: Time-Series used in Time-Series Analysis

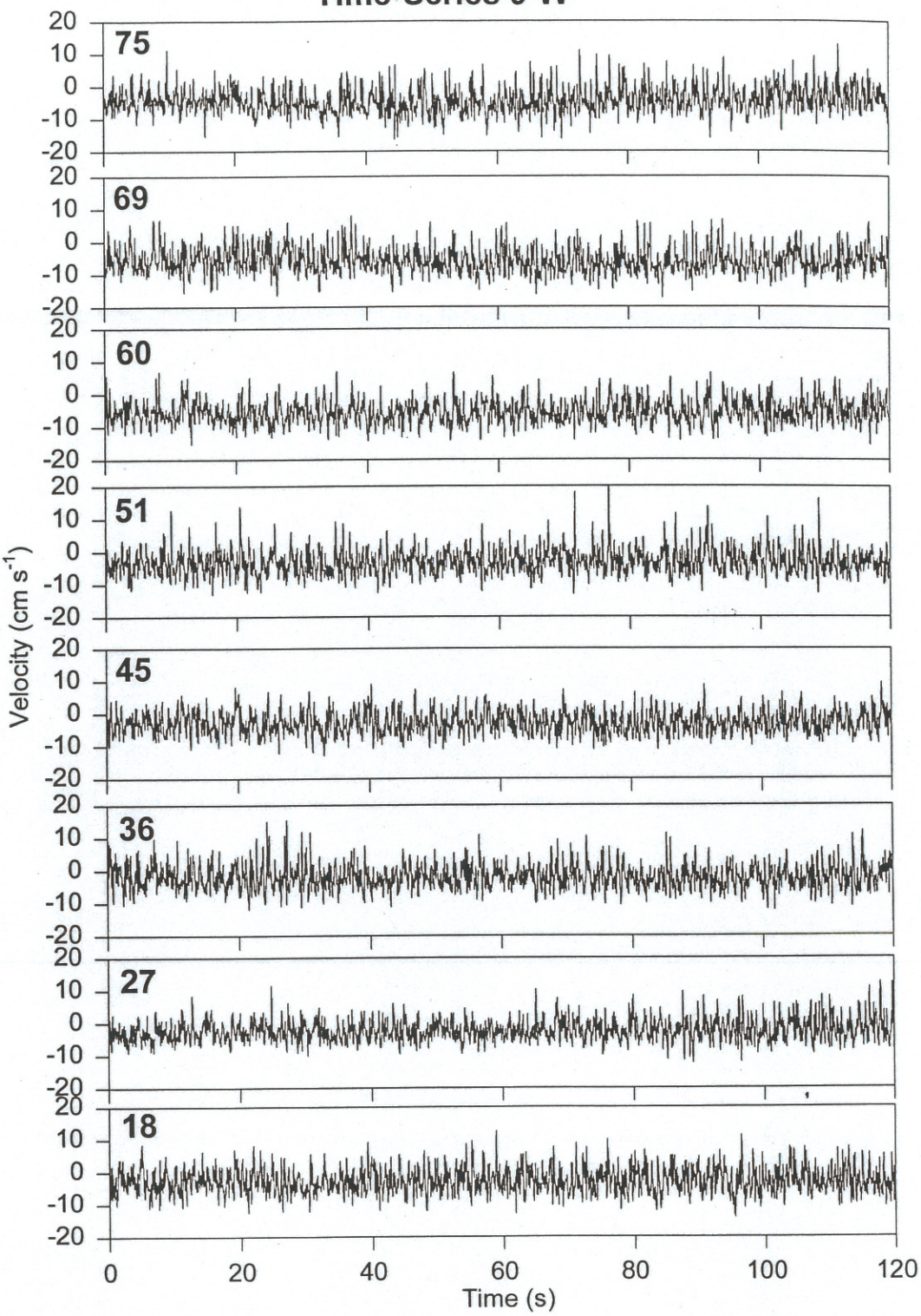


Figure G1: Time-Series used in Time-Series Analysis

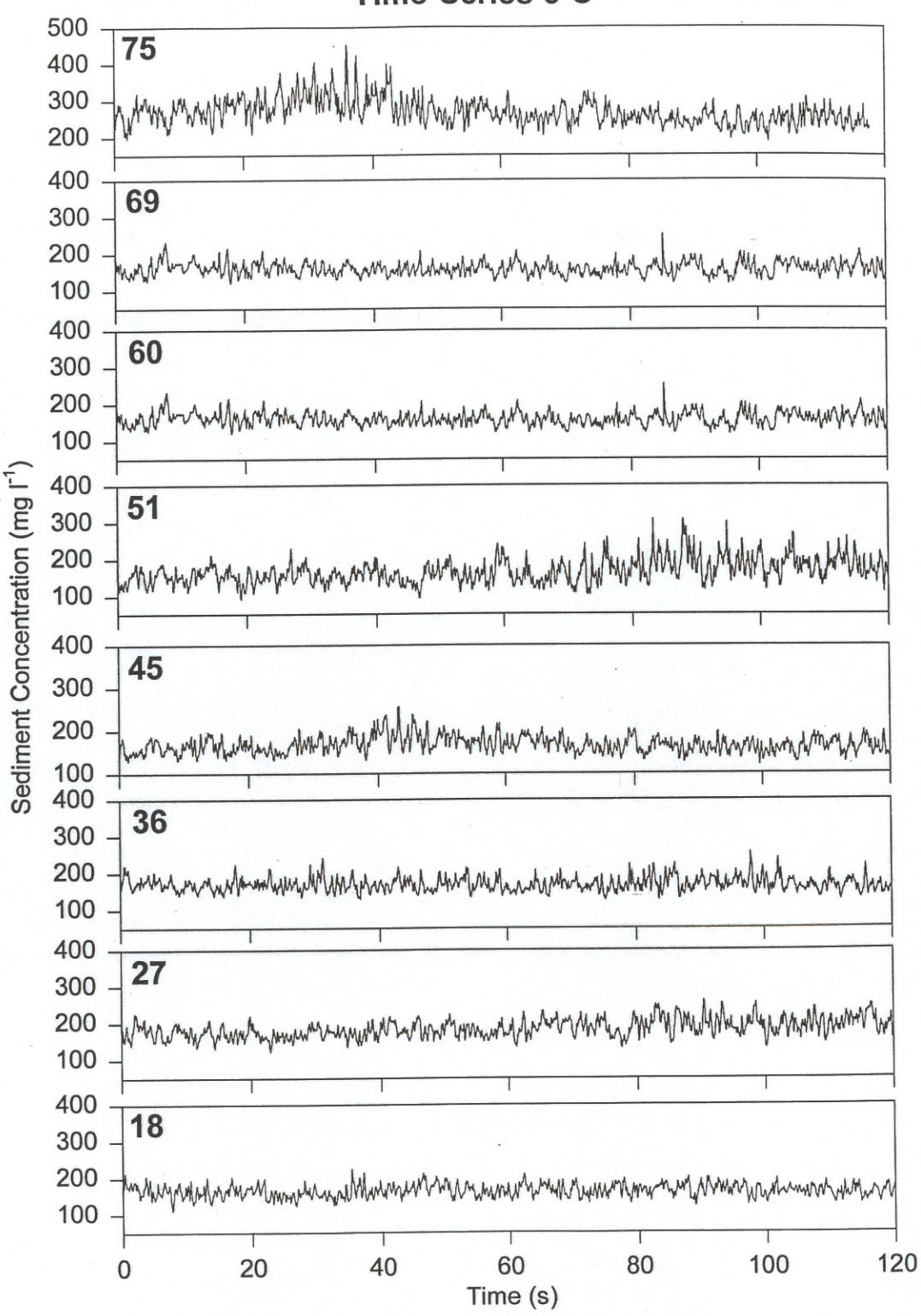


Figure G1: Time-Series used in Time-Series Analysis

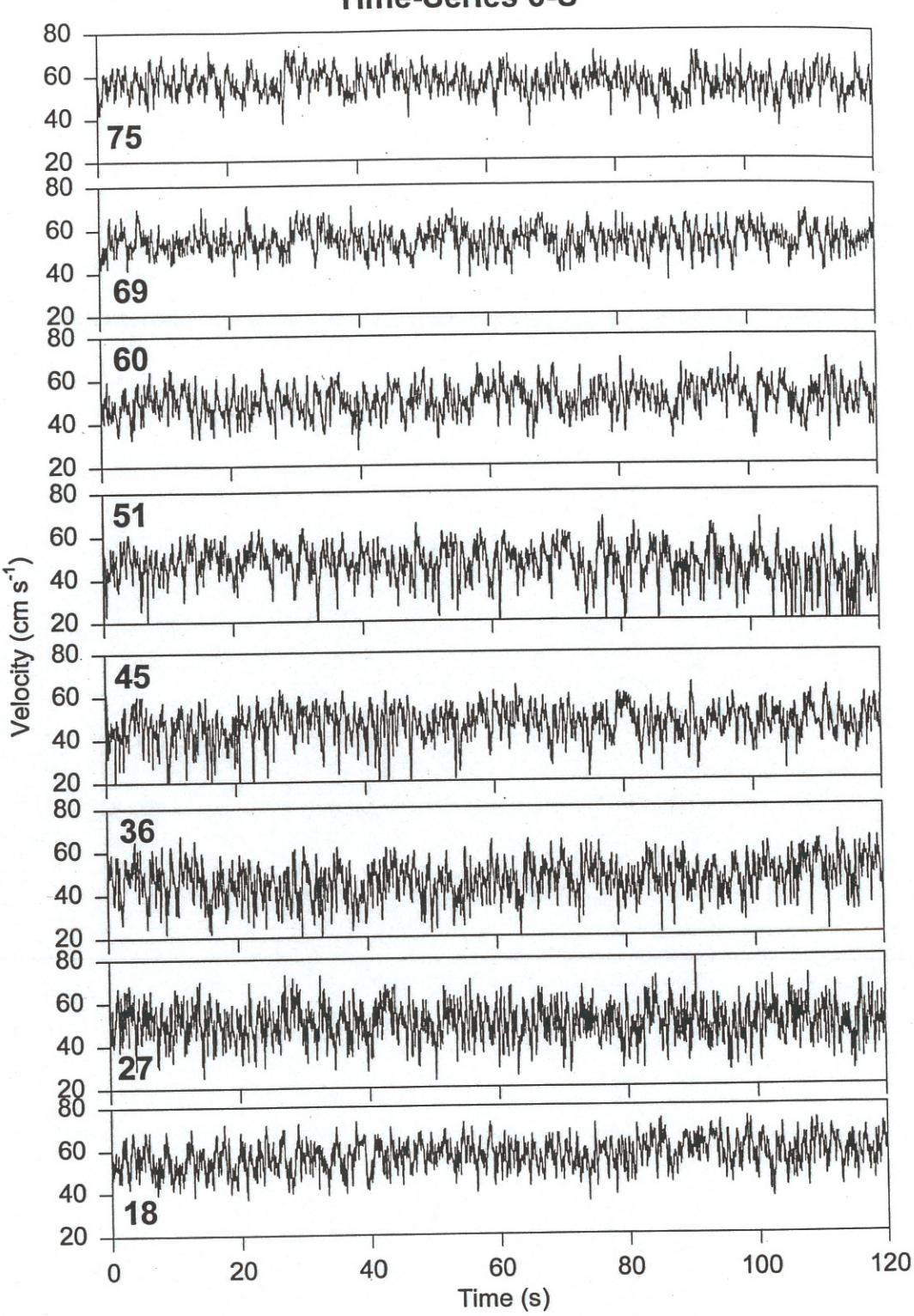


Figure G1: Time-Series used in Time-Series Analysis

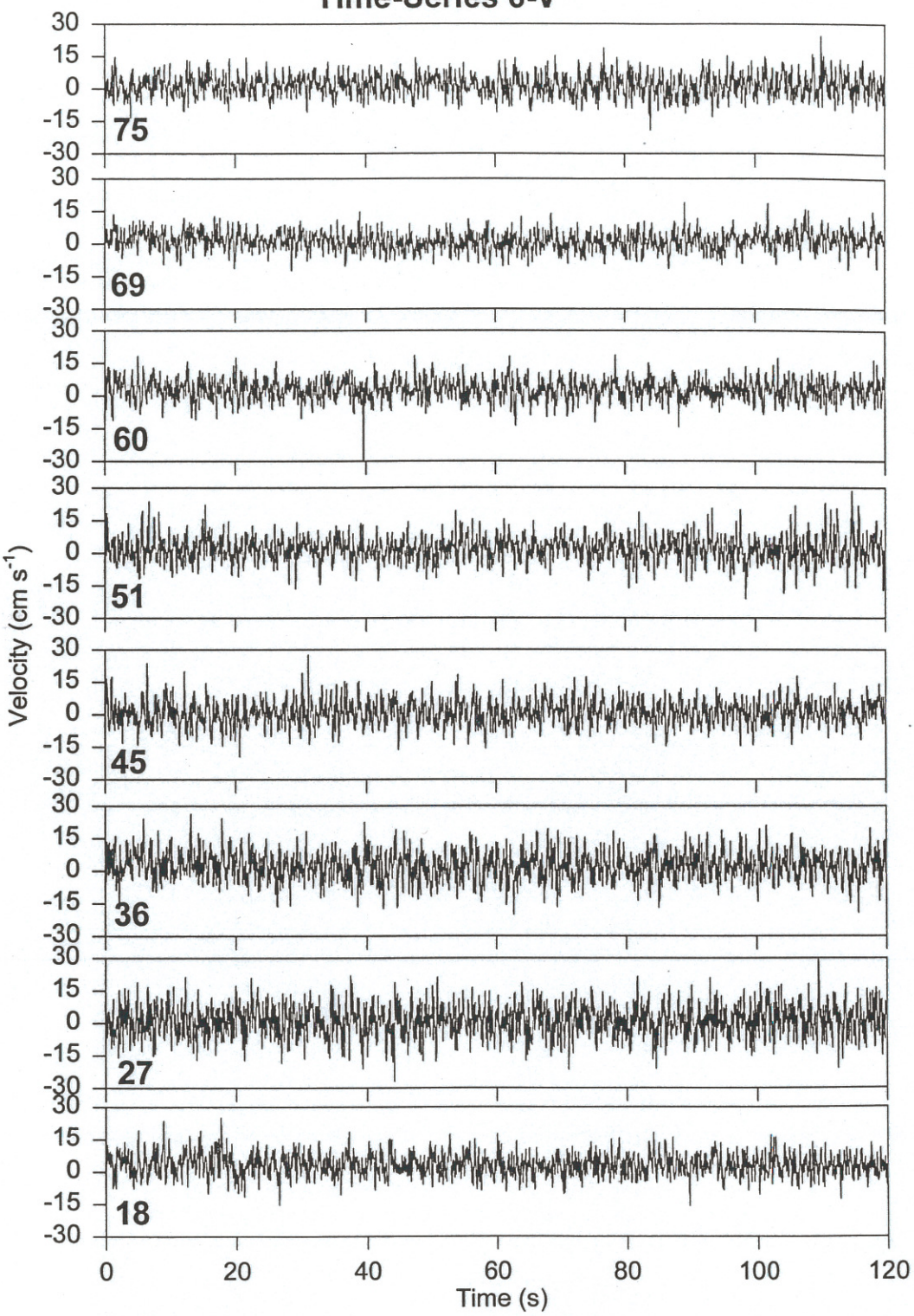


Figure G1: Time-Series used in Time-Series Analysis

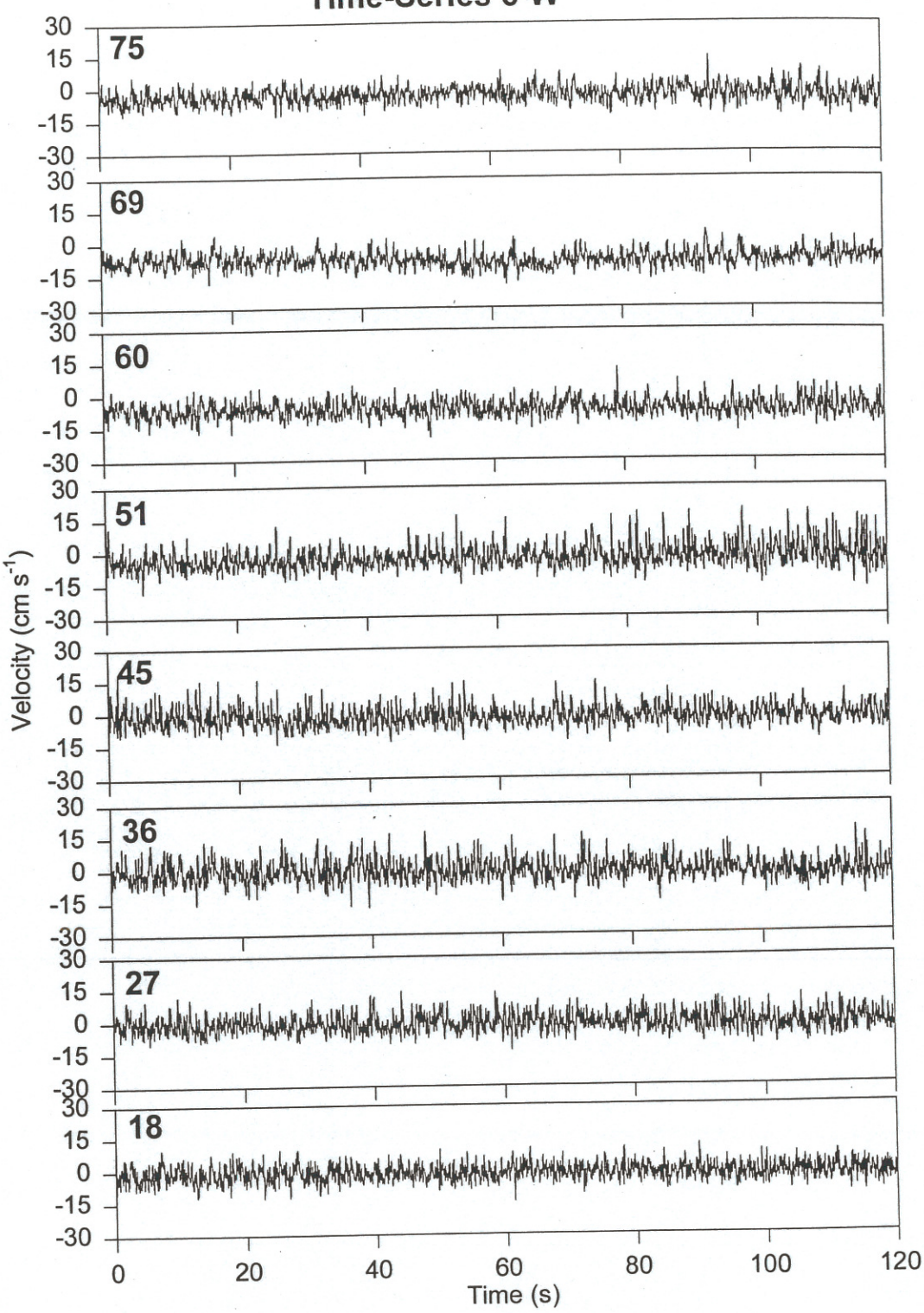


Figure G1: Time-Series used in Time-Series Analysis

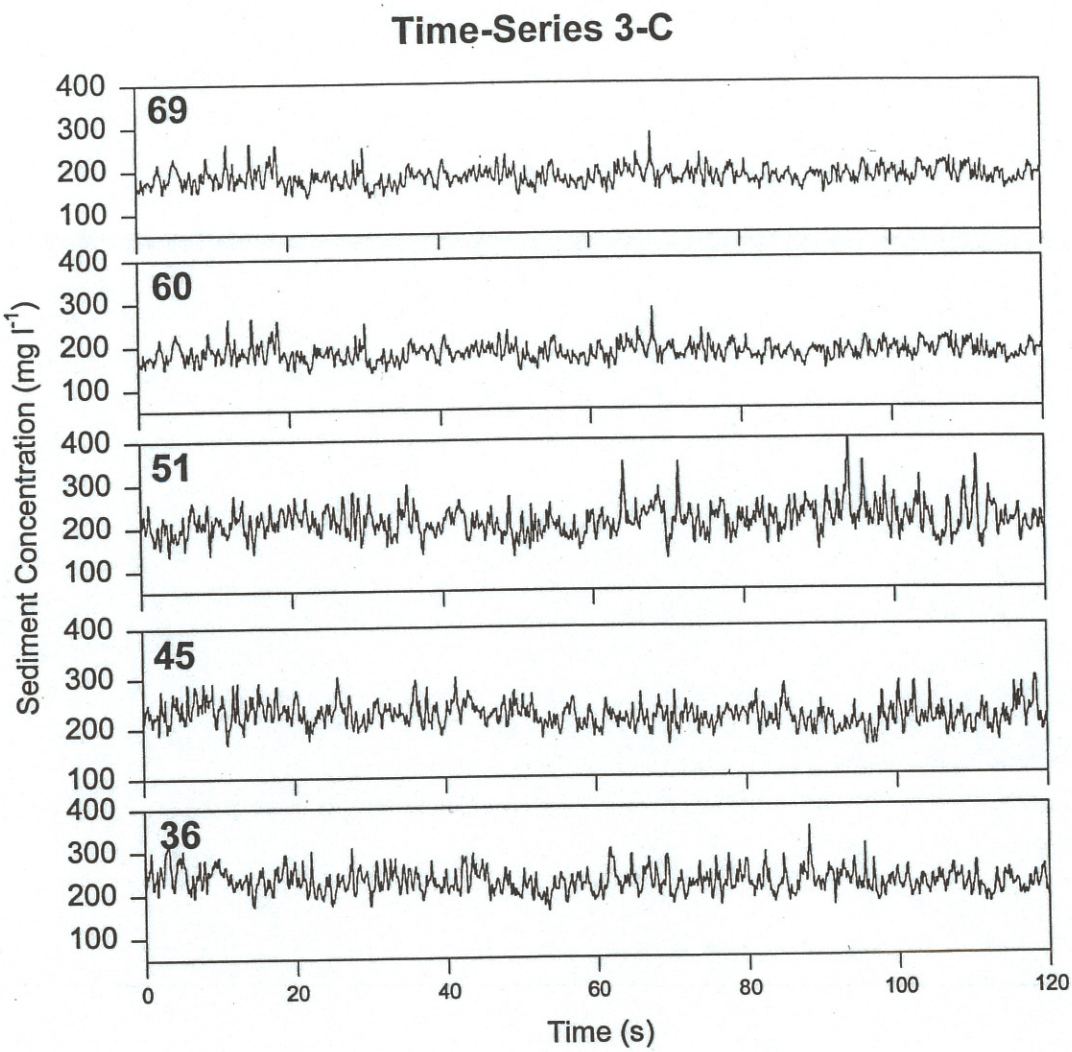


Figure G1: Time-Series used in Time-Series Analysis

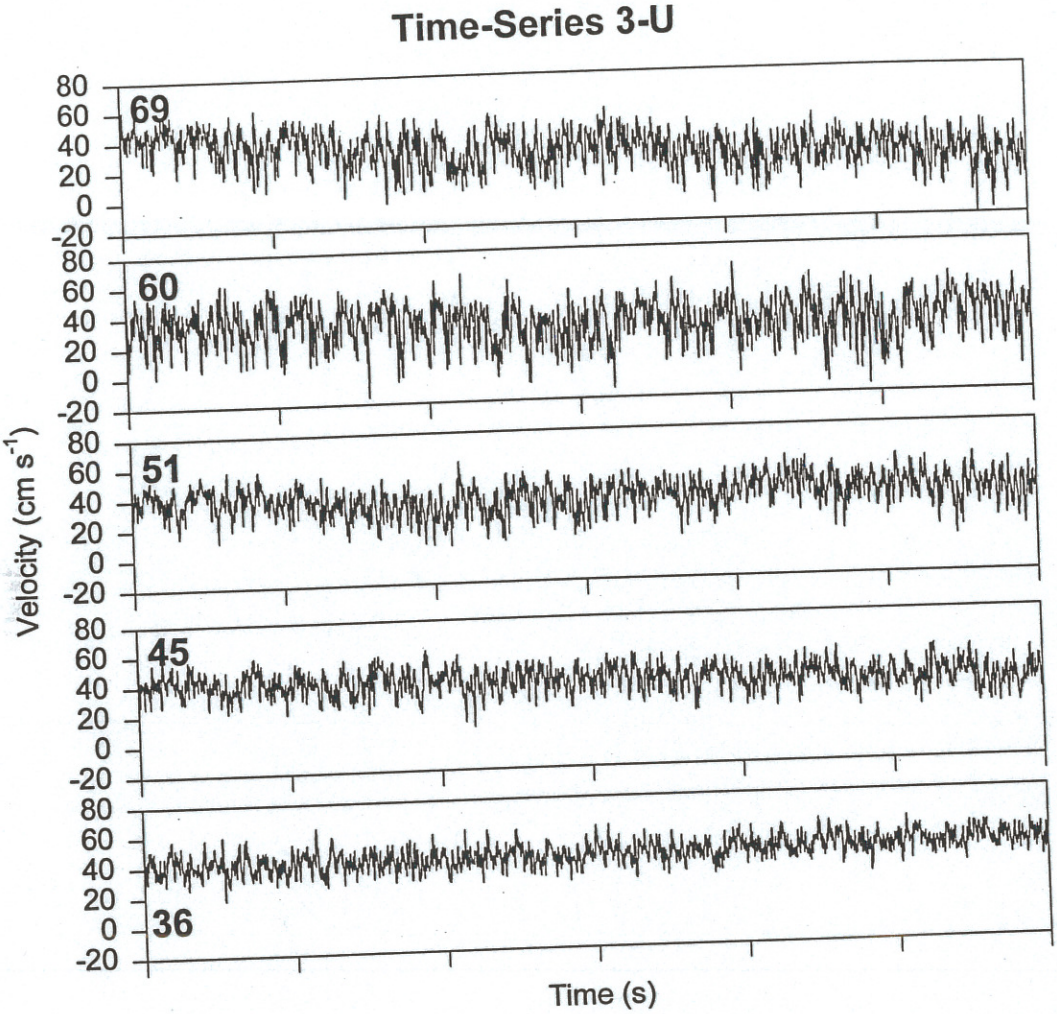


Figure G1: Time-Series used in Time-Series Analysis

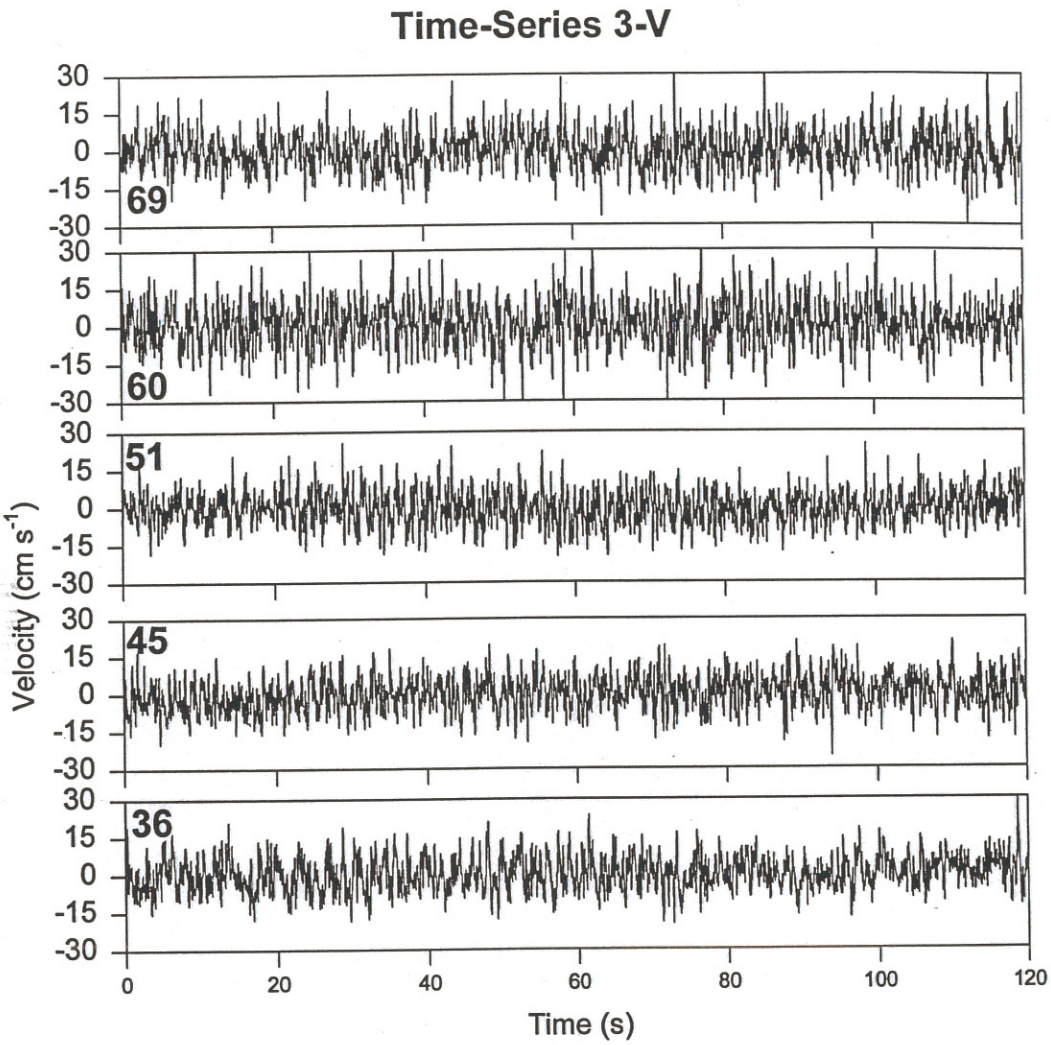
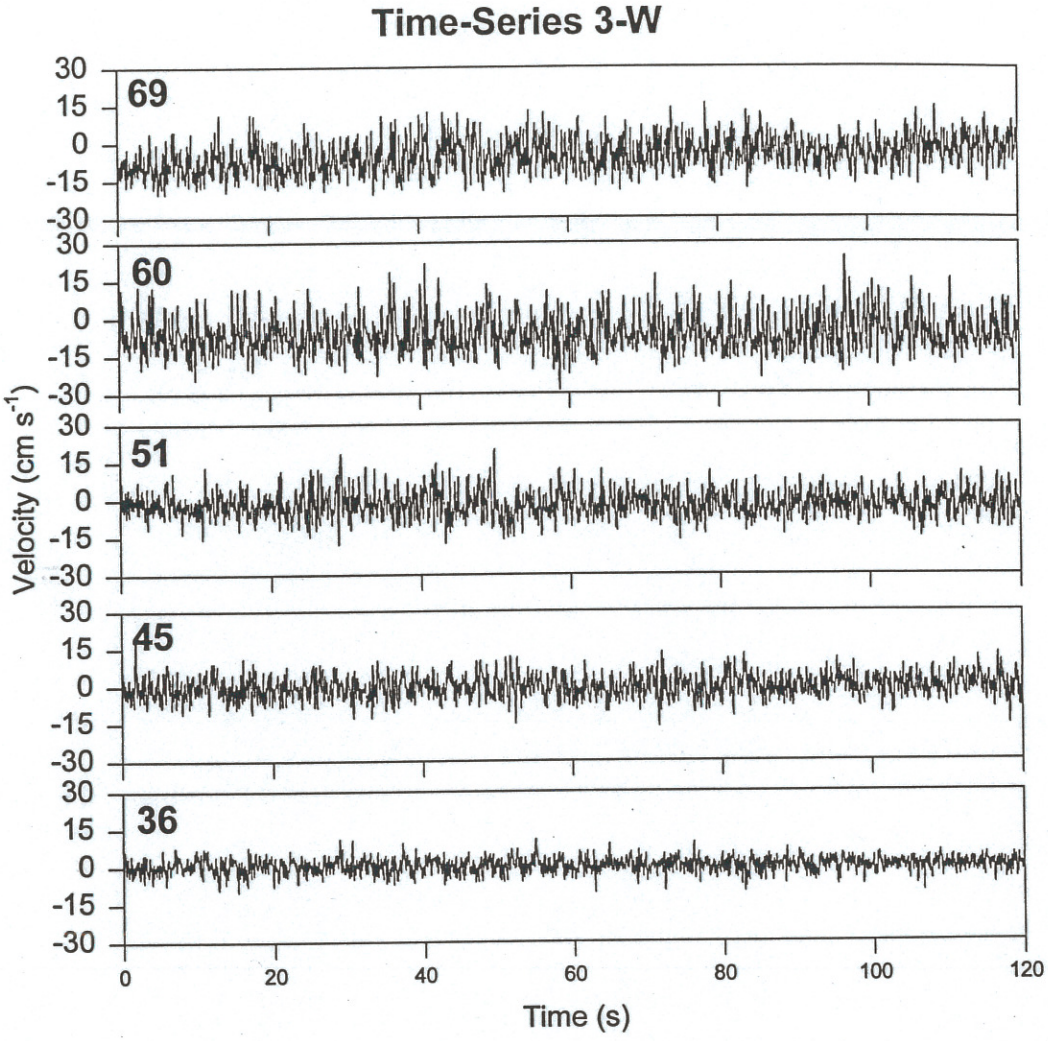


Figure G1: Time-Series used in Time-Series Analysis



Appendix H: Velocity and Concentration Spectra

Table H1: Velocity spectral estimates. All units are $cm^2\ s^{-2}$. u, v, and w refer to the streamwise, cross-stream and vertical velocity directions respectively. Headings indicate streamwise distances along working section (see Figure 2), the height above the dune trough, and the velocity component (i.e. 75-12-u means 75 cm in Figure 2, 12 cm above the dune trough and that this is a streamwise velocity spectrum).

Table H2: Concentration spectral estimates. Concentration estimate units are $mg^2\ l^{-2}$. c refers to concentration. Headings indicate streamwise distances along working section (see Figure 2), the height above the dune trough, and concentration (i.e. 75-12-u means 75 cm in Figure 2, 12 cm above the dune trough and that this is a concentration spectrum).

Table H1: Velocity Spectra

Freq. (Hz)	75-12-u	69-12-u	60-12-u	51-12-u	45-12-u	36-12-u	27-12-u	18-12-u
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0500	12.0500	13.7500	19.4350	13.5500	16.0300	19.7850	16.7750	13.4000
0.0999	23.5364	27.0829	38.0619	27.1528	32.1179	38.5414	32.9071	26.4435
0.1499	34.1772	39.6785	55.2831	40.9527	48.3428	55.4780	47.9230	38.8691
0.1998	43.8161	51.2087	70.4095	54.7252	64.4954	69.8501	61.2187	50.3096
0.2498	52.5329	61.4758	83.2334	68.1704	80.4856	81.3599	72.3920	60.6015
0.2997	60.3596	70.3096	93.5663	80.5294	95.6942	89.8501	81.0089	69.7402
0.3497	67.2823	77.7383	101.6578	91.3416	109.4911	95.6779	87.1103	77.9831
0.3996	72.9270	83.7961	107.5723	100.1398	121.3985	98.9809	90.7492	85.3945
0.4496	77.4661	88.5712	111.4109	106.6451	131.3282	100.2158	91.9882	91.9432
0.4995	80.9190	92.0579	113.5364	110.6892	138.8610	99.9500	90.8591	97.6523
0.5495	83.5240	94.3492	114.4609	112.7574	143.9690	99.0199	88.0299	102.7565
0.5994	85.4145	95.7242	114.9649	112.7471	147.2726	98.1218	84.5753	107.5324
0.6494	86.6949	96.5658	115.6581	111.3072	149.2321	98.2542	81.8893	112.2163
0.6993	87.6922	96.8531	116.9929	109.3006	150.2096	99.6503	80.2796	116.7831
0.7493	88.5673	96.5098	118.7641	107.7493	150.6093	102.1296	79.8754	120.7122
0.7992	89.1907	95.6642	120.3595	107.4924	151.0488	105.0149	80.3995	123.3965
0.8492	88.4866	94.3461	121.8602	109.4619	151.7520	107.5087	82.1261	124.7475
0.8991	86.7182	92.5174	123.2666	113.3765	151.8580	109.4205	84.9739	124.7052
0.9491	84.1852	90.4302	124.4270	118.8273	151.2865	110.4752	88.4182	123.3830
0.9990	81.4784	87.9719	125.2746	124.8750	149.9499	110.5893	91.8680	120.8790
1.0490	79.3883	85.2103	125.4604	131.2299	147.9090	109.8303	94.7667	117.8027
1.0989	78.5933	82.3296	125.2746	137.8021	145.1647	108.2417	96.8680	114.1757
1.1489	79.4120	79.9749	124.8854	144.1870	142.3487	106.1009	98.1390	110.0302
1.1988	81.3865	78.5094	124.0758	149.6102	140.0198	104.0678	98.2776	105.9499
1.2488	83.5447	77.7503	123.1317	153.4775	138.7417	102.6514	97.1317	102.5889
1.2987	85.6363	77.7012	121.9739	155.9739	138.5713	102.1038	94.8700	100.2986
1.3487	87.5711	78.3055	120.1287	157.3933	139.5905	102.6361	91.9544	98.7248
1.3986	89.4545	79.5104	117.6502	157.6222	141.3985	104.1258	88.7831	97.6223
1.4486	91.2039	81.4693	114.5843	156.5937	143.5997	105.8057	85.8585	96.8969
1.4985	92.4275	83.8860	110.9340	154.3455	145.4144	107.5024	83.4515	96.2337
1.5485	92.8945	86.5457	106.8465	150.6691	146.5036	109.1538	81.8382	95.5734
1.5984	92.5633	89.3665	102.5054	145.9819	146.5893	110.5294	80.8790	94.5933
1.6484	91.2719	92.0137	98.1622	140.5096	145.2570	111.4813	80.6232	93.2170
1.6983	89.0079	94.0858	94.0688	134.7601	142.4194	111.4085	80.8561	91.4195
1.7483	85.8940	95.3523	90.8592	129.2343	138.0982	110.4576	81.1036	89.6528
1.7982	82.1957	95.6822	88.8311	124.1837	132.6892	109.0968	81.3146	88.0938
1.8482	78.2343	95.0344	88.1407	119.0426	126.7496	107.6022	81.5241	86.9024
1.8981	74.3296	93.5004	88.8880	113.6582	120.8330	105.9519	81.6563	86.1548
1.9481	70.9498	91.5802	90.5282	108.4312	115.4054	103.8532	81.9176	86.1255
1.9980	68.4115	89.8101	92.6273	103.8161	110.9090	101.1987	82.2377	86.6932
2.0480	66.7238	88.3917	94.8224	100.0243	107.8272	98.2221	82.3706	87.5520
2.0979	65.4755	87.4824	96.6503	97.1537	106.6572	94.8880	82.3426	88.3635
2.1479	64.4585	87.1403	97.9228	94.7868	107.5668	91.5220	82.0927	88.9660
2.1978	63.6483	87.0329	98.4395	92.5933	110.2636	88.3516	81.5164	89.0768
2.2478	63.2756	87.2371	98.2064	90.6088	114.2332	85.2141	80.7635	88.6308
2.2977	63.5084	87.8181	97.1008	89.1278	118.5843	82.1428	79.9370	87.6343
2.3477	64.1861	88.5787	95.1758	88.3205	122.3621	79.4931	79.1879	86.2075
2.3976	65.2866	89.2147	92.5713	87.9679	125.0588	77.4185	78.6413	84.5394

Table H1: Velocity Spectra

Freq. (Hz)	75-12-u	69-12-u	60-12-u	51-12-u	45-12-u	36-12-u	27-12-u	18-12-u
2.4476	66.6481	89.9983	89.5577	87.6975	126.9815	75.9735	78.2498	82.7778
2.4975	67.9070	90.6593	86.4135	87.2377	128.1218	75.2747	77.8721	81.0189
2.5475	68.8844	90.8184	83.3542	86.3348	128.3431	75.0494	77.5714	79.5584
2.5974	69.5584	90.3116	80.8830	85.0389	127.3765	74.9090	77.2207	78.6233
2.6474	69.9178	89.0585	79.2367	83.3402	125.2485	74.6037	76.8011	78.3101
2.6973	69.9410	87.1498	78.3835	81.5394	121.9989	74.1218	75.9560	78.4375
2.7473	69.6166	85.0289	78.2431	80.0838	117.8317	73.4903	74.6441	78.8750
2.7972	69.0069	83.1887	78.2936	78.8251	113.1467	72.6433	72.8671	79.1328
2.8472	68.1620	81.8285	78.2980	77.4723	108.1082	71.5786	70.5821	79.2660
2.8971	67.2127	80.9160	78.3955	75.8461	102.9919	70.3995	68.0819	79.2647
2.9471	66.2803	80.3379	78.5402	74.0312	98.2268	69.3747	65.5435	79.0118
2.9970	65.4545	79.9600	78.5813	72.0779	94.1657	68.7512	62.9370	78.4914
3.0470	64.8097	79.5572	78.5212	69.8982	90.9225	68.4966	60.3611	77.7290
3.0969	64.2916	78.9090	78.3825	67.6673	88.5094	68.8751	58.1598	76.8031
3.1469	64.0079	77.8858	78.0117	65.5814	86.6027	70.1759	56.3924	75.5885
3.1968	63.9999	76.4035	77.3626	64.0319	84.8750	72.3116	55.0169	74.0059
3.2468	64.3516	74.5790	76.6245	63.2477	83.3129	75.3582	54.1891	72.2413
3.2967	64.6813	72.4285	75.7582	63.3296	82.0878	79.3186	53.9010	70.2856
3.3467	64.8590	70.1134	74.8657	64.2566	81.4252	83.9352	54.1831	68.2727
3.3966	64.8071	67.8980	74.1138	65.8601	81.3486	88.4475	54.8551	66.3016
3.4466	64.5548	66.1058	73.3781	67.9670	81.9946	92.3344	55.7660	64.4859
3.4965	63.9860	64.8251	72.6223	70.0699	82.5174	95.1747	56.6783	62.9370
3.5465	63.0922	63.9079	71.9940	71.8521	82.3852	96.7485	57.4178	61.8155
3.5964	62.0019	63.3686	71.4245	73.2946	81.8181	97.1747	57.9020	61.3546
3.6464	60.8220	63.1556	70.9225	74.2407	80.9865	96.6661	58.1236	61.5148
3.6963	59.6952	63.2437	70.2667	74.7761	79.8770	95.3276	58.0689	62.3196
3.7463	58.5547	63.7246	69.4564	74.8885	78.6348	93.4702	57.8429	63.5747
3.7962	57.4745	64.5354	68.5973	74.3296	77.2906	91.1847	57.5884	65.2946
3.8462	56.6545	65.3854	67.8854	73.1163	76.0009	88.6549	57.4238	67.3470
3.8961	55.9480	66.0389	67.3246	71.4934	74.7662	86.1428	57.4675	69.2727
3.9461	55.1665	66.3734	66.6496	69.7670	73.5948	83.8546	57.7314	70.8325
3.9960	54.3056	66.2936	65.7342	68.2117	72.4874	81.9979	58.0619	71.8880
4.0460	53.4072	65.7880	64.4932	66.9208	71.2096	80.4345	58.5052	72.5043
4.0959	52.6323	64.8791	63.0769	66.0259	69.6713	79.3376	58.9810	72.5793
4.1459	52.0310	63.6396	61.6081	65.8369	67.9098	78.4819	59.3278	71.9728
4.1958	51.5664	62.2657	59.9580	66.4195	65.9580	77.8321	59.4545	70.6992
4.2458	51.2043	60.8423	58.2524	67.5507	64.0691	77.2736	59.3563	68.7395
4.2957	51.0329	59.6243	56.4025	68.8171	62.1588	76.7642	59.0229	66.2397
4.3457	51.1923	58.5800	54.4951	69.9658	60.3183	76.0932	58.5366	63.4038
4.3956	51.6043	57.6263	52.7032	70.8571	58.5054	74.9889	58.1538	60.3955
4.4456	51.9246	56.5036	51.0355	71.1741	56.9481	73.5747	57.9262	57.7483
4.4955	52.1028	55.4295	49.6303	70.6693	55.6543	72.0179	57.9470	55.9690
4.5455	52.1823	54.4096	48.5459	69.3643	54.7733	70.5007	58.2279	55.1369
4.5954	52.0659	53.5824	47.6083	67.5524	54.5014	69.1148	58.8211	55.1908
4.6454	51.7962	52.9576	46.9185	65.4072	54.6299	67.7764	59.4147	56.1629
4.6953	51.1318	52.6813	46.4647	63.1987	54.9350	66.4854	59.9120	57.8930
4.7453	50.0629	52.9101	46.0104	61.2618	55.3302	65.2004	60.2653	60.1704
4.7952	48.6713	53.4665	45.6024	59.3646	55.9120	64.0639	60.5154	62.9130
4.8452	47.0953	54.3147	45.2639	57.6579	56.7857	63.0845	60.4681	65.8947

Table H1: Velocity Spectra

Freq. (Hz)	75-12-u	69-12-u	60-12-u	51-12-u	45-12-u	36-12-u	27-12-u	18-12-u
4.8951	45.4755	55.3636	44.9958	56.1957	57.8111	62.3636	60.0139	68.7272
4.9451	43.9075	56.5719	44.8718	55.1873	58.8467	61.7643	59.0939	71.0611
4.9950	42.6373	57.7422	44.9650	54.5454	59.8401	61.2387	57.7922	72.7272
5.0450	41.7625	58.9256	45.3243	54.3347	60.6409	60.8427	56.2518	73.7075
5.0949	41.2687	60.1708	46.0273	54.5154	61.2916	60.4255	54.6173	73.8761
5.1449	41.1026	61.2758	47.1479	55.2562	61.8417	59.9381	53.0954	73.4692
5.1948	41.2519	62.1298	48.5090	56.3116	62.3895	59.4285	51.8337	72.5194
5.2448	41.7014	62.7278	49.8780	57.2732	62.7803	58.8467	50.9375	71.2768
5.2947	42.2941	63.0069	51.1997	57.8181	63.0069	58.2417	50.3950	70.2077
5.3447	42.8057	62.9606	52.4369	57.9365	62.9071	57.4555	50.2295	69.5880
5.3946	43.0867	62.3616	53.4335	57.8301	62.5774	56.5354	50.2129	69.3746
5.4446	43.0886	61.3606	53.9941	57.4405	62.0140	55.4805	50.1339	69.6364
5.4945	42.7912	59.9450	54.0934	57.0329	61.2087	54.2142	49.9340	70.4944
5.5445	42.2380	58.3281	53.6264	56.6648	60.2133	52.6450	49.6510	71.6349
5.5944	41.4377	56.5594	52.6992	56.2797	59.1328	50.9874	49.2419	72.8391
5.6444	40.5663	54.5305	51.5277	55.9247	57.9680	49.4449	48.6886	73.9981
5.6943	39.6836	52.3306	50.2522	55.6789	56.7608	48.1852	48.0884	74.8231
5.7443	38.8602	50.2454	48.9759	55.4899	55.6221	47.3618	47.4939	75.0206
5.7942	38.1780	48.2831	47.7674	55.2245	54.5292	46.9852	46.9736	74.3396
5.8442	37.6776	46.4555	46.6075	54.8653	53.4627	47.2679	46.5900	72.9941
5.8941	37.3450	44.7598	45.4376	54.4674	52.2983	48.1784	46.5103	70.9650
5.9441	37.0912	43.3384	44.2657	54.0497	51.0301	49.6035	46.8455	68.2383
5.9940	37.0010	42.1918	43.1808	53.5864	49.7202	51.5124	47.5804	65.0948
6.0440	36.9772	41.2926	42.2113	53.1328	48.3580	53.9125	48.5635	61.8301
6.0939	36.8864	40.6951	41.3959	52.7366	47.1058	56.4417	49.7445	58.5014
6.1439	36.6729	40.4330	40.7525	52.2846	46.0793	59.0244	51.1111	55.3995
6.1938	36.3948	40.5260	40.2535	51.8917	45.2395	61.4859	52.4181	52.5668
6.2438	35.9955	40.8594	39.7605	51.6237	44.4996	63.5619	53.5406	50.1752
6.2937	35.5594	41.5070	39.2538	51.5328	43.9993	65.1398	54.4405	48.3797
6.3437	35.1948	42.3759	38.8044	51.6250	43.7652	66.0379	54.9174	47.1020
6.3936	34.8771	43.3422	38.5278	51.7754	43.7962	66.1098	54.8827	45.8677
6.4436	34.5957	44.4028	38.3588	51.8516	44.0098	65.5314	54.4162	44.6735
6.4935	34.4610	45.5064	38.3571	51.7857	44.4350	64.2792	53.5259	43.5324
6.5435	34.6217	46.6421	38.5216	51.4319	44.9277	62.5951	52.1648	42.4739
6.5934	35.0703	47.7890	38.8219	50.7560	45.4087	60.5538	50.5648	41.4659
6.6434	35.7415	48.9154	39.2359	49.7724	45.8660	58.2493	48.9220	40.4849
6.6933	36.4450	49.9521	39.6243	48.4528	46.1972	55.9493	47.5090	39.7180
6.7433	37.0140	50.9996	39.9473	46.8255	46.2793	53.9531	46.3669	39.2325
6.7932	37.5053	51.8797	40.2022	44.9438	46.0171	52.4435	45.5348	39.0541
6.8432	37.8976	52.5352	40.4638	42.9548	45.4731	51.6388	45.0214	39.3689
6.8931	38.1533	52.9735	40.8347	41.0346	44.7569	51.4018	44.7569	40.1385
6.9431	38.3120	53.1703	41.2976	39.2771	44.0262	51.6219	44.6233	41.3045
6.9930	38.4615	53.0629	41.8461	37.8951	43.2587	52.3216	44.4895	42.8251
7.0430	38.5675	52.7169	42.4200	36.9687	42.5608	53.4986	44.3075	44.7019
7.0929	38.5854	52.1754	43.0965	36.5213	41.9687	54.7075	44.1107	46.8699
7.1429	38.5217	51.5646	43.9288	36.5288	41.4217	55.7432	43.9645	49.3574
7.1928	38.4455	50.9610	44.8759	36.9206	40.8335	56.4563	43.8545	52.0183
7.2428	38.2927	50.3882	45.8904	37.6553	40.2193	56.6677	43.7755	54.6397
7.2927	38.0096	49.8894	46.9723	38.5127	39.4608	56.2778	43.7854	57.0581

Table H1: Velocity Spectra

Freq. (Hz)	75-12-u	69-12-u	60-12-u	51-12-u	45-12-u	36-12-u	27-12-u	18-12-u
7.3427	37.5579	49.4237	48.1461	39.3936	38.5198	55.2391	43.8359	59.0353
7.3926	36.9113	48.9020	49.3234	40.2010	37.5396	53.5224	43.9268	60.3532
7.4426	36.1189	48.3695	50.2673	40.8450	36.7218	51.2349	44.0825	61.0591
7.4925	35.2972	47.7872	50.8666	41.3286	36.2113	48.5739	44.2582	61.1688
7.5425	34.4391	47.1708	51.0778	41.7704	36.1059	45.8584	44.4404	60.7247
7.5924	33.4673	46.5414	50.8007	42.2213	36.3069	43.3070	44.7572	59.8281
7.6424	32.3808	45.9767	50.0806	42.6446	36.7217	41.3225	45.1589	58.4873
7.6923	31.1692	45.4153	48.9538	43.1384	37.3077	40.2538	45.5615	56.7769
7.7423	29.9550	44.8976	47.5068	43.6975	38.0224	40.1903	45.9273	54.8465
7.7922	28.9246	44.3220	45.8883	44.2052	38.7662	40.9870	46.2389	52.8779
7.8422	28.1457	43.6967	44.2692	44.6378	39.4776	42.3871	46.5670	51.0841
7.8921	27.6224	43.0435	42.7515	44.9613	40.2497	44.1484	46.8712	49.5703
7.9421	27.4241	42.3076	41.4101	45.1429	40.9733	46.1992	47.1125	48.4706
7.9920	27.5724	41.5744	40.2557	45.2187	41.5344	48.2477	47.3126	47.7762
8.0420	28.1068	40.9097	39.3334	45.1478	41.8908	49.9730	47.4639	47.3995
8.0919	28.9528	40.2572	38.6307	44.8210	42.0617	51.1894	47.5966	47.1596
8.1419	30.0518	39.5859	37.9982	44.1698	42.0366	51.8802	47.7197	46.8892
8.1918	31.2927	38.8455	37.5594	43.2036	41.8519	52.0998	47.8073	46.4557
8.2418	32.5057	37.9370	37.3354	41.9425	41.5304	51.8162	47.7860	45.8162
8.2917	33.5731	36.7239	37.3458	40.3806	41.1434	51.0852	47.6773	44.9991
8.3417	34.4095	35.2270	37.4292	38.5470	40.8076	50.0502	47.4810	44.1276
8.3916	34.9510	33.5412	37.5105	36.5622	40.5818	48.9230	47.0853	43.3846
8.4416	35.1761	31.8333	37.5736	34.5430	40.4353	48.0158	46.4204	43.0606
8.4915	35.1039	30.1363	37.5664	32.6583	40.2837	47.5949	45.7097	43.1708
8.5415	34.7981	28.5969	37.6082	31.1594	40.0767	47.7214	45.0222	43.6300
8.5914	34.2367	27.4581	37.7678	30.0098	39.7868	48.2493	44.4433	44.3746
8.6414	33.5286	26.9007	37.9703	29.1302	39.5085	49.0486	44.1057	45.2204
8.6913	32.7488	26.9691	38.2330	28.6205	39.3368	49.9663	44.2126	46.0726
8.7413	32.0194	27.6225	38.6365	28.5229	39.2484	50.7782	44.7729	46.9233
8.7912	31.4285	28.7121	39.1384	28.6857	39.2175	51.4021	45.6351	47.6659
8.8412	30.9265	30.1308	39.6086	29.1583	39.2372	51.7387	46.7169	48.2376
8.8911	30.4876	31.6968	39.8677	29.9541	39.3076	51.7551	47.7986	48.5543
8.9411	30.1047	33.1894	39.8952	30.9451	39.3140	51.5991	48.8005	48.5233
8.9910	29.8052	34.5075	39.7222	32.0529	39.2187	51.3746	49.6663	48.0209
9.0410	29.5189	35.5854	39.3736	33.1353	39.0933	51.0455	50.3674	47.2573
9.0909	29.1636	36.3181	38.9000	34.0454	38.9454	50.6909	50.8545	46.3363
9.1409	28.7116	36.6550	38.3369	34.6806	38.7940	50.3938	51.0519	45.3023
9.1908	28.2433	36.6897	37.8110	34.9986	38.6657	50.0715	50.9354	44.2813
9.2408	27.8056	36.4180	37.4530	34.9857	38.5619	49.6139	50.5841	43.3856
9.2907	27.4447	35.8807	37.2371	34.7101	38.5378	49.0177	50.0862	42.5886
9.3407	27.2188	35.0930	37.1199	34.2523	38.6145	48.3381	49.5151	41.9491
9.3906	27.2327	34.1724	37.1774	33.6841	38.7644	47.6385	49.0189	41.5252
9.4406	27.5099	33.1554	37.4697	33.0893	38.9330	46.9198	48.7324	41.3498
9.4905	27.9685	32.0874	37.8766	32.5999	39.1388	46.1998	48.7622	41.2932
9.5405	28.4975	31.0829	38.3814	32.2660	39.4118	45.4414	49.1622	41.2627
9.5904	28.9822	30.2289	38.8028	32.0032	39.7330	44.6913	49.8317	41.3059
9.6404	29.3743	29.5671	38.8990	31.7748	40.0366	44.1241	50.6989	41.5790
9.6903	29.6717	29.0418	38.7127	31.6388	40.2729	43.8292	51.6396	42.3175
9.7403	29.8345	28.5391	38.2794	31.6365	40.4125	44.0262	52.3736	43.5197

Table H1: Velocity Spectra

Freq. (Hz)	75-12-u	69-12-u	60-12-u	51-12-u	45-12-u	36-12-u	27-12-u	18-12-u
9.7902	29.8307	28.0685	37.5356	31.6517	40.4433	44.7510	52.7496	44.9958
9.8402	29.6879	27.6805	36.4973	31.6461	40.3350	45.9045	52.9009	46.6524
9.8901	29.4923	27.4945	35.3175	31.5989	40.1340	47.3241	52.8032	48.3725
9.9401	29.3134	27.5540	34.2039	31.4107	39.8797	48.8556	52.4638	49.9490
9.9900	29.2208	27.8721	33.3067	31.0589	39.6603	50.2197	51.9780	51.2587
10.0400	29.2465	28.4132	32.6902	30.6120	39.6379	51.0835	51.3345	52.2582
10.0899	29.3414	29.1699	32.3381	30.1890	39.8551	51.3273	50.5706	52.7500
10.1399	29.5375	30.0851	32.2145	29.8620	40.2960	50.9530	49.7159	52.6261
10.1898	29.8663	31.1400	32.3526	29.6931	40.9324	49.8791	48.8499	51.8763
10.2398	30.3098	32.1325	32.7059	29.8388	41.6657	48.1066	48.1373	50.5846
10.2897	30.8485	33.0608	33.0917	30.4061	42.4141	45.8509	47.6310	48.8349
10.3397	31.4740	33.9246	33.4903	31.3190	43.1476	43.3130	47.2834	46.8285
10.3896	32.2285	34.6805	34.0052	32.4259	43.8753	40.6961	47.0441	44.7584
10.4396	33.0100	35.2232	34.4924	33.6364	44.5667	38.1985	46.7903	42.7502
10.4895	33.6608	35.6433	34.8042	34.8356	45.2517	35.9580	46.4475	40.9720
10.5395	34.1058	36.0662	34.8963	35.8132	45.8995	34.2218	45.9311	39.4388
10.5894	34.3097	36.5652	34.7756	36.4381	46.4769	33.0919	45.2061	38.2489
10.6394	34.2589	37.0889	34.4185	36.6208	46.7708	32.5991	44.2067	37.5145
10.6893	33.8958	37.5729	33.8637	36.3116	46.7016	32.6558	43.0137	37.1560
10.7393	33.2918	37.9527	33.1630	35.5471	46.2219	33.2381	41.7114	36.9754
10.7892	32.4863	38.1830	32.3029	34.3960	45.3254	34.1478	40.3085	36.9530
10.8392	31.5746	38.3166	31.4120	33.0812	44.0505	35.1732	38.8585	37.1026
10.8891	30.5984	38.2752	30.6964	31.7308	42.5437	36.2280	37.3169	37.3605
10.9391	29.6231	38.0134	30.1810	30.4654	40.9232	37.2148	35.7927	37.5430
10.9890	28.6703	37.5055	29.9560	29.3956	39.3406	38.2088	34.5055	37.6373
11.0390	27.7520	36.8813	30.0592	28.5800	37.9742	39.2547	33.4702	37.6430
11.0889	26.8240	36.2274	30.3725	28.0882	36.8262	40.4967	32.7344	37.6025
11.1389	26.0093	35.5442	30.8659	27.9141	35.8004	41.8711	32.3808	37.6049
11.1888	25.3314	34.8643	31.5412	27.9608	34.9202	43.2447	32.3021	37.6391
11.2388	24.8265	34.2334	32.3790	28.3330	34.1997	44.6068	32.5476	37.7174
11.2887	24.4287	33.8548	33.3581	28.9668	33.6855	45.9902	33.1210	37.9413
11.3387	24.1514	33.8347	34.4923	29.6847	33.3925	47.3504	33.9254	38.3702
11.3886	24.0413	34.0633	35.5894	30.3848	33.3572	48.7204	34.8719	39.0743
11.4386	24.0439	34.5560	36.3747	30.9872	33.4693	50.0553	35.8028	39.9207
11.4885	24.1259	35.2582	36.7287	31.4440	33.6039	51.2387	36.6943	40.7957
11.5385	24.2885	36.0809	36.6347	31.7309	33.6809	52.2809	37.6270	41.5386
11.5884	24.6022	36.9322	36.1326	31.8681	33.6411	53.2139	38.7168	42.1470
11.6384	24.9993	37.7433	35.2760	31.8543	33.4138	53.9207	39.8964	42.6315
11.6883	25.4688	38.5948	34.1532	31.6636	33.0194	54.4441	41.0961	42.8376
11.7383	26.0473	39.5933	32.8907	31.3295	32.5503	54.7592	42.3048	42.6805
11.7882	26.7828	40.6929	31.5688	30.9440	32.0993	54.8623	43.4867	42.2135
11.8382	27.6304	41.8362	30.3531	30.5781	31.6198	54.7043	44.6419	41.5402
11.8881	28.5196	42.9160	29.3874	30.1720	31.1825	54.4118	45.7454	40.7286
11.9381	29.3797	43.8606	28.6156	29.7020	30.8242	53.9483	46.7377	39.8613
11.9880	30.0659	44.6673	28.0040	29.2387	30.5334	53.3106	47.5684	38.9490
12.0380	30.4441	45.2508	27.5429	28.8551	30.3358	52.4496	48.1038	38.0642
12.0879	30.5219	45.6681	27.1615	28.6362	30.1956	51.3373	48.3032	37.3637
12.1379	30.3812	45.8691	26.8976	28.6333	30.1627	49.8868	48.1025	36.8749
12.1878	30.0795	45.8627	26.7278	28.8973	30.2745	48.0931	47.5324	36.6122

Table H1: Velocity Spectra

Freq. (Hz)	75-12-u	69-12-u	60-12-u	51-12-u	45-12-u	36-12-u	27-12-u	18-12-u
12.2378	29.6644	45.8428	26.6662	29.4931	30.5823	46.0508	46.6260	36.5176
12.2877	29.2079	45.9806	26.7257	30.3138	31.2476	43.8671	45.4891	36.6173
12.3377	28.8085	46.0936	26.8962	31.1033	32.1891	41.6644	44.1196	36.8897
12.3876	28.5658	46.0323	27.0545	31.7618	33.3722	39.6032	42.5762	37.3486
12.4376	28.4572	45.7704	27.2135	32.2756	34.7382	37.7357	40.9570	37.9098
12.4875	28.4465	45.3047	27.3351	32.5924	36.1638	36.1139	39.4355	38.5614

Table H1: Velocity Spectra

Freq. (Hz)	75-9-u	69-9-u	60-9-u	51-9-u	45-9-u	36-9-u	27-9-u	18-9-u
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0500	17.8200	18.5550	22.9600	21.6800	18.9250	14.8400	18.1100	15.8400
0.0999	34.9750	36.4735	44.9150	42.6074	37.5025	30.0299	35.6044	31.7682
0.1499	51.0110	53.1246	65.2815	62.2385	55.4330	45.9144	52.0153	48.0579
0.1998	65.5544	67.8721	83.6163	80.0599	72.2477	62.5774	66.8531	64.7752
0.2498	78.3623	80.5355	99.8950	95.6234	87.6798	80.2607	79.7611	82.0593
0.2997	89.2507	91.0189	114.1557	108.7312	101.3885	98.6612	90.3296	99.5603
0.3497	98.4406	99.7344	126.6613	119.7373	112.8832	117.2894	98.7553	116.5900
0.3996	106.2536	106.9330	137.9020	128.7112	121.8780	135.4244	105.0948	132.3875
0.4496	113.1643	113.0294	148.5478	135.6443	128.2259	152.5942	109.0730	146.6595
0.4995	119.5304	118.1817	158.6412	141.3585	131.8680	168.0818	110.6892	159.1407
0.5495	125.7806	122.8682	167.8173	146.5517	133.1988	181.4449	110.6693	169.4109
0.5994	131.5683	127.3126	176.1637	151.8280	133.1867	192.0478	109.6303	177.3025
0.6494	136.8935	131.5684	183.3906	157.6743	132.9322	199.6905	108.6446	182.7412
0.6993	141.7481	135.3146	188.3914	164.8949	132.8670	204.4753	108.6712	185.9439
0.7493	145.7389	138.6205	191.1464	173.3131	133.4503	206.9567	109.1730	187.3250
0.7992	148.9709	141.6182	191.6482	181.8180	134.9849	207.5522	109.6502	187.7321
0.8492	150.9878	144.3640	189.7962	189.9660	137.4006	206.6953	110.3960	187.4184
0.8991	151.6782	147.0928	185.9339	197.3525	140.7092	204.3654	111.5783	186.2935
0.9491	150.4324	150.1476	180.5188	202.4430	145.2123	201.4939	112.6582	184.6949
0.9990	147.3525	154.0458	174.4254	204.3954	150.1497	198.4014	113.1867	182.7171
1.0490	142.8738	158.2941	168.2596	203.2962	154.7275	195.3238	113.5018	180.6378
1.0989	137.5823	162.1976	162.8570	199.4504	158.7911	192.5273	113.9559	178.7910
1.1489	132.4682	165.9012	159.0078	193.4748	161.9949	189.7983	115.1198	177.7348
1.1988	128.1517	169.7501	156.6832	186.6532	164.1157	187.7321	117.3745	176.7031
1.2488	124.6677	173.5832	155.8502	179.5774	165.2162	186.0712	120.4093	175.4564
1.2987	122.3765	177.6622	155.9739	173.2466	164.8050	183.7661	123.7531	173.3765
1.3487	121.8820	181.6699	156.9887	168.5875	163.4624	180.8607	127.2094	170.6106
1.3986	122.6992	185.0348	158.8810	164.7551	161.3984	177.3425	130.5313	167.9719
1.4486	124.8548	187.4488	161.5189	161.9535	159.3460	173.5423	133.1119	166.0096
1.4985	128.0019	188.8110	164.0858	159.8900	157.1927	169.3305	134.7601	164.8350
1.5485	131.3593	189.0719	166.3089	158.2567	155.0049	165.0701	135.4318	163.8313
1.5984	134.6652	188.2915	167.8320	156.7071	152.7911	160.6392	135.0968	162.8770
1.6484	137.8722	186.1044	168.4665	155.1969	150.1528	156.4332	133.7512	162.1861
1.6983	140.7551	182.2276	168.1826	153.2036	146.5633	153.3395	131.4994	162.2216
1.7483	143.0109	177.6273	166.9976	150.9657	142.0319	151.7874	128.1854	163.0814
1.7982	144.8990	172.4474	164.7511	148.4054	137.0588	151.5703	124.0758	164.9129
1.8482	146.3774	166.4304	161.2185	145.3794	132.0724	152.3656	119.8927	167.6133
1.8981	147.6532	159.9339	156.7071	141.9399	127.2296	153.9549	116.1637	170.4873
1.9481	148.6205	153.4129	151.8934	138.1593	122.4965	156.5104	113.2041	173.1861
1.9980	149.5103	147.1127	147.6322	134.2656	117.8620	159.7801	110.9889	175.1447
2.0480	150.3642	141.4554	144.2202	130.4781	113.3363	163.5328	109.4246	175.7798
2.0979	151.2166	136.8250	141.9859	127.2376	109.5733	167.3495	108.3356	175.1537
2.1479	152.1358	133.3202	141.2674	124.7715	106.6003	170.9728	107.1373	173.5074
2.1978	152.5053	130.8350	142.3735	122.5493	104.3296	173.5822	105.7142	170.8130
2.2478	152.3334	129.2260	144.3088	120.1000	103.0841	174.7665	103.7135	167.5285
2.2977	151.7171	128.3725	146.2486	117.5503	103.0059	174.4184	101.3745	163.8260
2.3477	150.5815	127.8323	147.7642	115.1312	103.8622	172.6264	98.8382	159.9018
2.3976	148.7951	127.3126	148.6272	112.6872	105.1108	169.7501	96.3835	155.2926

Table H1: Velocity Spectra

Freq. (Hz)	75-9-u	69-9-u	60-9-u	51-9-u	45-9-u	36-9-u	27-9-u	18-9-u
2.4476	146.3910	126.5409	148.6672	110.5826	106.2503	166.2165	94.2816	149.9155
2.4975	143.6812	125.4494	147.6272	109.1907	107.0179	161.8130	92.5823	144.4804
2.5475	141.3098	124.0633	145.0292	108.8802	107.3007	156.5948	91.2515	139.6285
2.5974	139.5064	122.3375	141.0128	109.7402	106.8570	150.8050	90.3376	136.1557
2.6474	138.6708	120.4832	135.9440	111.7468	105.6313	144.7598	89.9322	134.5673
2.6973	139.1537	118.5194	129.9559	114.6622	103.6572	139.1267	90.0359	135.4314
2.7473	140.5519	116.6229	123.5186	118.4361	101.2380	134.6177	90.3862	138.3540
2.7972	142.2936	114.8810	116.8390	122.5174	98.5454	130.8810	90.6293	142.1817
2.8472	143.4989	113.0908	109.9589	125.8462	95.9506	127.5261	90.8542	146.0614
2.8971	143.9569	111.1907	103.2816	128.0228	93.1707	124.8071	91.0269	149.3745
2.9471	143.5532	109.0722	97.4017	128.7883	90.1223	122.8057	90.9770	151.7167
2.9970	142.2376	106.6333	92.1877	127.7022	87.0629	121.3186	90.5993	152.7271
3.0470	139.9487	103.9941	87.1442	124.7137	83.9753	120.2651	89.8256	152.0148
3.0969	136.6662	101.1448	82.5634	120.2526	80.8601	119.5094	88.8501	149.2706
3.1469	132.3901	98.0889	78.8298	114.7045	77.8858	118.9843	87.5468	144.5056
3.1968	127.2966	95.0409	76.0519	108.4674	75.0928	118.8890	85.6423	137.9739
3.2468	121.6901	92.0792	74.1894	101.8196	72.6634	119.3199	83.2804	130.0343
3.2967	115.6812	89.4395	73.2197	95.4724	70.5164	120.3955	80.6702	121.2197
3.3467	109.6379	87.3823	72.7238	89.7585	68.4735	121.5856	77.9446	112.2818
3.3966	104.1398	86.0359	72.7552	85.0169	66.6753	122.5493	75.1328	103.7661
3.4466	99.8135	85.3378	73.5849	81.4776	65.1407	123.1470	72.3786	96.4703
3.4965	96.8880	85.3146	75.1748	79.1957	63.8811	122.7272	69.9999	90.8740
3.5465	95.0817	85.7898	77.3492	77.9521	62.8085	121.1839	68.0928	86.6055
3.5964	93.3985	86.7092	79.7322	77.5743	61.8581	118.7891	66.4615	83.7242
3.6464	91.9257	87.9512	82.0805	77.8871	61.1866	115.7732	65.4164	81.9711
3.6963	90.5594	88.8960	84.2017	78.7312	61.0259	112.3675	65.0179	80.9490
3.7463	88.7873	89.2369	85.9401	79.9086	61.4393	108.9049	65.1856	79.9835
3.7962	86.5534	88.8690	87.0469	81.2387	62.4855	105.4205	65.7502	79.3026
3.8462	84.4626	87.9241	87.4626	82.5779	63.8469	102.0012	66.5777	78.9240
3.8961	83.0649	86.6882	87.1947	83.8051	65.1818	98.8441	67.5194	78.9350
3.9461	82.4735	85.5120	86.2617	85.1174	66.1761	96.2454	68.2281	79.4350
3.9960	82.7172	84.4754	84.8750	86.6732	66.8531	93.9060	68.4515	80.3196
4.0460	83.5094	83.7117	83.2262	88.2028	67.0827	91.8037	68.2965	81.4864
4.0959	84.3755	83.2287	81.4675	89.5773	66.7632	89.9050	67.7462	83.0239
4.1459	85.3226	82.9595	79.7257	90.6708	66.0856	88.2248	66.7490	84.9910
4.1958	86.1817	82.8671	78.2936	91.4265	65.2866	86.6433	65.3706	87.3985
4.2458	86.8691	82.9205	77.0613	91.7517	64.4512	84.9160	63.8144	90.0110
4.2957	87.1168	83.2077	76.0768	91.7562	63.6193	82.9929	62.3306	92.4005
4.3457	86.7836	83.5678	75.3110	91.4335	62.7519	80.5693	60.8398	94.2582
4.3956	85.6702	83.7801	74.7252	90.8571	61.9340	77.6703	59.3406	95.0768
4.4456	84.0218	84.0663	74.3304	89.9789	60.9936	74.5972	57.9262	94.5579
4.4955	82.0429	84.2457	73.9959	88.7861	59.9700	71.4785	56.9580	92.5623
4.5455	79.9553	84.2736	73.5916	87.1827	58.9551	68.4098	56.4551	89.5009
4.5954	77.8461	84.1877	73.2507	85.2906	57.8561	65.5764	56.2017	86.0259
4.6454	75.9987	84.0817	72.8399	83.2456	56.6739	63.0381	56.3487	82.7346
4.6953	74.6083	83.8111	72.2137	81.3226	55.5454	60.8041	56.8601	79.7731
4.7453	73.9318	83.5647	71.3219	79.5312	54.5235	58.9841	57.6554	77.4907
4.7952	74.2776	83.2926	70.1538	77.9220	53.5144	57.5904	58.5494	76.0519
4.8452	75.7305	82.9983	68.8503	76.2150	52.4735	56.6888	59.5960	75.4398

Table H1: Velocity Spectra

Freq. (Hz)	75-9-u	69-9-u	60-9-u	51-9-u	45-9-u	36-9-u	27-9-u	18-9-u
4.8951	77.8810	82.6293	67.2587	74.5524	51.4475	56.0978	60.8461	75.5314
4.9451	80.3084	82.2370	65.6215	73.1380	50.6378	55.6818	62.1599	76.3029
4.9950	82.8671	81.5184	64.0359	72.0279	50.0999	55.4945	63.4865	77.5224
5.0450	85.2101	80.5687	62.6085	70.9327	49.9051	55.7473	64.6265	78.9038
5.0949	87.3266	79.2766	61.4445	69.8511	49.9402	56.4515	65.4695	80.1428
5.1449	89.4184	77.6880	60.8127	68.7873	50.2039	57.4171	65.8547	81.0836
5.1948	91.6882	75.8441	60.6233	67.8441	50.5246	58.5454	65.7142	81.4025
5.2448	93.9344	73.8468	60.6823	66.9761	50.6700	59.7383	64.9306	81.0322
5.2947	95.9929	71.8491	61.1008	66.1308	50.5061	60.9420	63.4305	79.8970
5.3447	97.8080	69.7483	62.0520	65.3122	50.1279	61.9451	61.2503	78.1395
5.3946	99.4764	67.8101	63.4944	64.5194	49.5278	62.8471	58.4775	76.0639
5.4446	100.9973	66.0430	65.2808	63.7563	48.7292	63.5929	55.3716	74.1010
5.4945	102.2526	64.2307	67.1977	63.1868	47.9230	64.1208	52.2362	72.7472
5.5445	103.0168	62.4865	69.0845	62.8192	47.3168	64.4271	49.1021	72.1339
5.5944	103.2726	61.2027	70.9370	62.6573	46.9650	64.4475	46.1426	72.2796
5.6444	102.7845	60.4515	72.5305	62.4271	46.8203	64.2333	43.6312	73.1514
5.6943	101.5863	60.2457	73.7981	62.1248	47.0121	63.7192	41.8076	74.4814
5.7443	99.8934	60.5449	74.6185	61.6363	47.5800	62.9001	40.6811	76.1120
5.7942	97.5164	61.1288	74.8611	60.8970	48.3758	61.8821	40.0959	77.8740
5.8442	94.3838	61.8901	74.6304	60.0784	49.2374	60.6628	40.0035	79.7149
5.8941	90.5334	62.7722	74.0888	59.1178	49.9702	59.3536	40.2567	81.3975
5.9441	86.1300	63.8396	73.3502	58.0441	50.4595	58.0917	40.6874	82.9202
5.9940	81.1588	64.9150	72.5274	56.7632	50.8291	57.0509	41.2267	84.2756
6.0440	76.0940	65.8192	71.8027	55.2482	51.2652	56.4268	41.8305	85.5226
6.0939	71.1768	66.3626	71.1768	53.5349	51.5971	56.2833	42.5110	86.5334
6.1439	66.9071	66.4156	70.5320	51.8729	51.7931	56.5054	43.1855	87.3048
6.1938	63.5484	65.8401	69.9280	50.2998	51.8607	57.0449	43.7902	87.6423
6.2438	60.9957	64.7482	69.4935	48.8452	51.7861	57.6677	44.2685	87.7254
6.2937	59.3307	63.0629	69.2307	47.7566	51.6776	58.2419	44.5783	87.6712
6.3437	58.7998	60.8678	68.9560	47.1210	51.6123	58.7236	44.7167	87.4796
6.3936	59.3902	58.3608	68.6033	46.9674	51.5452	59.1024	44.6529	87.0169
6.4436	60.7760	55.7565	67.8511	47.1736	51.5295	59.3456	44.4093	86.4087
6.4935	62.6038	53.3051	66.6882	47.6688	51.5519	59.4285	44.0779	85.7142
6.5435	64.6498	51.1636	65.1013	48.2714	51.5170	59.3953	43.5732	84.6729
6.5934	66.6593	49.4769	63.1714	48.8241	51.3098	59.2021	42.8835	83.4724
6.6434	68.4270	48.2975	60.9000	49.4601	50.9084	58.8738	42.0527	82.0460
6.6933	69.7442	47.5090	58.2518	50.1864	50.2131	58.4927	41.2106	80.2527
6.7433	70.6698	47.1289	55.3760	50.8512	49.2193	58.2823	40.4126	78.0200
6.7932	70.7851	47.0837	52.4639	51.3974	47.9464	58.3536	39.7130	75.4045
6.8432	70.1428	47.4234	49.8938	51.8030	46.5132	58.6394	39.2800	72.6748
6.8931	68.6139	48.1828	47.8795	51.9878	45.0188	58.9636	39.2424	70.1028
6.9431	66.4871	49.2960	46.4077	51.9274	43.5888	59.1552	39.5340	67.9035
6.9930	64.0349	50.5174	45.4685	51.6923	42.2727	59.2587	40.0279	66.0069
7.0430	61.5488	51.7379	45.0329	51.2167	40.9550	59.0837	40.6170	64.4505
7.0929	59.2186	52.9769	44.9477	50.5795	39.4720	58.6867	41.2736	63.1055
7.1429	57.2575	54.1646	45.0288	49.8360	37.9217	58.0503	41.9860	62.2289
7.1928	55.8377	55.1975	45.2427	49.0765	36.4603	57.1036	42.8187	62.1889
7.2428	55.0018	56.1534	45.5934	48.4471	35.2145	55.8927	43.7538	62.8965
7.2927	54.6734	57.1310	45.9440	48.0443	34.2611	54.4838	44.7845	64.1831

Table H1: Velocity Spectra

Freq. (Hz)	75-9-u	69-9-u	60-9-u	51-9-u	45-9-u	36-9-u	27-9-u	18-9-u
7.3427	54.7765	58.2937	46.3324	47.8230	33.5929	53.0216	45.8405	65.8273
7.3926	55.1192	59.6583	46.6843	47.9262	33.2889	51.6743	46.7952	67.5758
7.4426	55.4027	61.1261	46.8363	48.4588	33.3280	50.4757	47.6252	69.2460
7.4925	55.5569	62.5998	46.7907	49.3456	33.7088	49.4130	48.3941	70.7816
7.5425	55.4525	63.9755	46.7107	50.5423	34.3863	48.6039	49.0413	72.1365
7.5924	55.1436	65.3402	46.7920	52.0383	35.3502	48.0067	49.5328	73.2059
7.6424	54.8189	66.8251	47.2835	53.7031	36.4925	47.6427	49.9737	73.9173
7.6923	54.4538	68.3307	48.1230	55.2923	37.6384	47.6692	50.3461	74.2845
7.7423	53.9483	69.7659	49.3649	56.5343	38.7812	48.1029	50.5340	74.3029
7.7922	53.2207	70.9869	51.0233	57.4986	39.9584	48.6311	50.4389	74.0649
7.8422	52.4722	71.7483	52.9349	58.1499	41.0382	49.2176	50.0724	73.6147
7.8921	51.9221	71.9760	54.8422	58.4805	41.8597	49.9017	49.3967	72.7099
7.9421	51.6872	71.7013	56.3730	58.5095	42.3235	50.7500	48.3753	71.2168
7.9920	51.8441	71.0089	57.3026	58.2217	42.4615	51.6683	47.0329	69.1788
8.0420	52.3695	70.0297	57.4681	57.6531	42.3492	52.6268	45.6946	66.7969
8.0919	53.2204	68.9106	56.7566	56.9427	42.0131	53.6088	44.5783	64.3225
8.1419	54.2983	67.7569	55.1695	56.2442	41.5237	54.4205	43.6813	61.9924
8.1918	55.3520	66.5748	52.9108	55.6715	40.9017	54.9178	43.0643	59.8984
8.2418	56.0607	65.4399	50.2338	55.2201	40.1540	55.1541	42.6348	57.8492
8.2917	56.3421	64.3519	47.3373	54.9325	39.2695	55.1315	42.2296	55.9192
8.3417	56.1230	63.2051	44.4112	54.8800	38.1966	54.8133	41.7669	54.4630
8.3916	55.4349	61.9384	41.6139	55.0321	36.9818	54.2517	41.2783	53.6559
8.4416	54.4990	60.5516	39.0846	55.2418	35.7249	53.4944	40.8742	53.4775
8.4915	53.5899	59.0584	37.1079	55.2032	34.4840	52.6218	40.5214	54.0144
8.5415	52.8890	57.5014	35.9255	54.9731	33.3802	51.6505	40.0682	55.0927
8.5914	52.3818	56.0331	35.5598	54.5640	32.5184	50.5948	39.4259	56.4369
8.6414	52.0990	54.7778	35.7927	53.9310	31.9645	49.4893	38.6271	57.7678
8.6913	51.9392	53.6253	36.3644	52.9648	31.7928	48.4366	37.5986	58.9009
8.7413	51.8621	52.7100	37.0981	51.8184	32.0718	47.4128	36.3638	59.7118
8.7912	52.0351	52.2373	37.7846	50.5934	32.8527	46.3384	35.0945	60.1846
8.8412	52.4902	52.3134	38.3001	49.3781	34.0033	45.3907	33.8883	60.2351
8.8911	53.1599	53.0710	38.6229	48.2253	35.3421	44.6778	32.8259	59.9527
8.9411	53.9238	54.4871	38.7418	47.3074	36.6943	44.1601	31.9913	59.3868
8.9910	54.6473	56.3466	38.7063	46.6273	37.8881	43.8941	31.4505	58.6123
9.0410	55.3400	58.4953	38.6051	46.2357	38.7497	43.8669	31.3271	57.6364
9.0909	55.8272	60.6545	38.5636	46.0545	39.1454	44.1090	31.5727	56.6181
9.1409	56.0611	62.5786	38.7391	46.0244	39.0682	44.4888	31.9657	55.5492
9.1908	56.0823	64.0323	39.2080	46.0735	38.5095	44.8511	32.4160	54.3728
9.2408	55.8884	64.8057	39.9203	46.0561	37.5639	45.1690	32.8972	53.0237
9.2907	55.5584	64.7933	40.8977	45.9332	36.3917	45.3200	33.3257	51.5913
9.3407	55.1008	64.0865	42.0425	45.6106	35.2144	45.3024	33.7479	50.2343
9.3906	54.6721	62.8419	43.3282	44.9716	34.1724	45.2063	34.1254	49.0002
9.4406	54.3023	61.0429	44.6068	44.0593	33.2970	45.1072	34.4110	47.8450
9.4905	53.8965	58.7272	45.8581	42.9445	32.6378	45.1843	34.4885	46.8451
9.5405	53.3219	56.2508	46.8725	41.7492	32.2183	45.4414	34.4030	46.0520
9.5904	52.4499	53.8885	47.4629	40.5578	32.1182	45.9092	34.2857	45.7270
9.6404	51.2580	51.7979	47.5465	39.5449	32.3628	46.6017	34.2138	45.9076
9.6903	49.8566	50.1085	47.2208	38.9259	32.9083	47.4049	34.2358	46.4844
9.7403	48.2534	48.9450	46.6268	38.7859	33.6430	48.1463	34.3930	47.3086

Table H1: Velocity Spectra

Freq. (Hz)	75-9-u	69-9-u	60-9-u	51-9-u	45-9-u	36-9-u	27-9-u	18-9-u
9.7902	46.6209	48.3048	45.8965	39.0139	34.5300	48.6573	34.6769	48.2069
9.8402	44.9107	48.1186	45.1173	39.4887	35.5034	48.8960	35.1000	49.1616
9.8901	43.1505	48.2043	44.6340	40.0747	36.4846	48.7780	35.8318	50.0637
9.9401	41.4005	48.4182	44.6609	40.5655	37.4245	48.2393	37.0269	50.6746
9.9900	39.7402	48.5314	45.2547	40.8791	38.2417	47.3526	38.6213	50.8191
10.0400	38.2624	48.5334	46.4752	40.9532	38.9452	46.2141	40.5014	50.5715
10.0899	37.0703	48.3912	48.1288	40.8338	39.6432	44.9101	42.4886	50.0964
10.1399	36.1893	48.2051	49.9796	40.4683	40.3061	43.5407	44.3519	49.4827
10.1898	35.6541	48.0551	51.6521	39.8727	40.9120	42.3080	45.9968	48.7582
10.2398	35.4604	47.9223	52.9807	39.1160	41.5633	41.4610	47.3181	48.1373
10.2897	35.5818	47.7957	53.8563	38.3703	42.2083	41.1074	48.1764	47.9191
10.3397	35.9925	47.6764	54.2421	37.6572	42.8064	41.3588	48.4932	48.2347
10.3896	36.6961	47.5116	54.0571	36.9974	43.2623	42.2961	48.2493	49.0597
10.4396	37.5826	47.3123	53.1271	36.4551	43.5331	43.6897	47.4584	50.3293
10.4895	38.5804	47.1608	51.4300	36.1363	43.6468	45.3986	46.2482	51.9440
10.5395	39.6285	47.1221	49.1035	36.0451	43.6968	47.1537	44.7613	53.8463
10.5894	40.7268	47.1334	46.3604	36.1628	43.7025	48.6159	43.0671	55.8273
10.6394	41.8128	47.0581	43.5151	36.4719	43.6535	49.7286	41.1638	57.4953
10.6893	42.7786	46.8191	40.8545	36.9636	43.5161	50.4535	39.1870	58.5881
10.7393	43.5049	46.4475	38.4897	37.4909	43.3223	50.6680	37.1795	59.0769
10.7892	44.0955	46.1346	36.5862	38.0104	43.0489	50.4719	35.2915	59.0061
10.8392	44.5274	46.1100	35.2599	38.5876	42.6848	50.0229	33.6991	58.4666
10.8891	44.8195	46.4420	34.6927	39.2334	42.2170	49.5345	32.5149	57.4182
10.9391	45.0253	47.1803	34.9504	39.8949	41.7545	49.0837	31.5593	55.8660
10.9890	45.2087	48.4065	35.7362	40.5604	41.3296	48.7142	30.7362	54.0549
11.0390	45.2599	50.1281	36.9365	41.2307	41.0651	48.5054	30.1696	52.3911
11.0889	45.2760	52.3618	38.3454	41.8717	41.0400	48.3476	29.8846	51.0422
11.1389	45.2685	55.0707	39.7882	42.3835	41.2251	48.2092	29.9302	49.9245
11.1888	45.2699	58.1258	41.1188	42.6965	41.5664	48.1342	30.3328	48.9734
11.2388	45.3148	61.4987	42.2466	42.7412	42.0556	48.0122	30.9517	48.3156
11.2887	45.3580	65.0342	43.1454	42.5584	42.5132	47.6383	31.6874	48.0673
11.3387	45.3208	68.5991	43.8127	42.1006	42.8149	47.0556	32.5761	48.2008
11.3886	45.1444	72.0898	44.1536	41.2723	42.9122	46.2263	33.6533	48.6863
11.4386	44.8851	75.3804	44.1644	40.2181	42.7575	45.1253	34.7962	49.5177
11.4885	44.5754	78.1792	43.9090	39.0264	42.3466	43.8516	35.9131	50.6298
11.5385	44.3425	80.1926	43.6040	37.7770	41.7001	42.5309	36.8886	51.9694
11.5884	44.3025	81.2810	43.3174	36.5614	40.9186	41.2199	37.6044	53.3066
11.6384	44.4354	81.4572	43.0854	35.4971	40.0245	39.9546	38.0110	54.5608
11.6883	44.7545	80.8129	42.9077	34.7026	39.0857	38.7350	38.1389	55.7766
11.7383	45.2511	79.5387	42.7626	34.2289	38.1025	37.4569	37.9851	56.8368
11.7882	45.8679	77.6842	42.6497	34.1740	37.1564	36.2134	37.5690	57.5854
11.8382	46.4531	75.2318	42.6294	34.5202	36.3670	35.0884	36.9470	57.9243
11.8881	46.8391	72.1608	42.7139	35.1174	35.8426	34.2496	36.1398	57.7643
11.9381	47.0003	68.6560	42.8458	35.8382	35.5278	33.6535	35.1219	57.2193
11.9880	46.8731	64.8791	42.8691	36.7432	35.3047	33.3027	34.0100	56.5234
12.0380	46.5750	61.0929	42.7349	37.8234	35.0787	33.3091	32.9480	55.7961
12.0879	46.3087	57.5626	42.4164	38.9835	34.8011	33.6044	31.9483	54.9153
12.1379	46.0997	54.5113	42.0214	40.0429	34.4595	34.1682	31.1701	53.8801
12.1878	45.9480	52.0663	41.6579	40.9998	33.9552	34.8815	30.8473	52.8585

Table H1: Velocity Spectra

Freq. (Hz)	75-9-u	69-9-u	60-9-u	51-9-u	45-9-u	36-9-u	27-9-u	18-9-u
12.2378	45.8306	50.1750	41.4250	41.8778	33.3725	35.6242	31.0473	52.0474
12.2877	45.6857	48.6839	41.5079	42.7735	32.8082	36.4453	31.8129	51.5100
12.3377	45.6248	47.5125	41.9729	43.6384	32.3248	37.2969	33.1267	51.2261
12.3876	45.8341	46.6393	42.6629	44.4095	31.9972	38.0919	34.7844	51.2103
12.4376	46.3301	46.0191	43.4072	45.0241	31.8029	38.7680	36.5665	51.2927
12.4875	47.0404	45.5419	44.0934	45.4670	31.7432	39.2108	38.4240	51.3486

Table H1: Velocity Spectra

Freq. (Hz)	75-6-u	69-6-u	60-6-u	51-6-u	45-6-u	36-6-u	27-6-u	18-6-u
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0500	16.8650	14.5700	24.5200	35.2450	23.6350	31.0300	17.8300	14.7550
0.0999	33.2767	28.9011	48.2117	69.9200	46.9930	60.9090	35.3047	30.1898
0.1499	48.8524	42.8414	70.4530	103.5809	70.0333	88.6359	52.2252	46.8737
0.1998	63.1768	56.2037	90.6692	135.4444	92.5274	113.2267	68.3915	64.7752
0.2498	76.3389	68.9448	108.7130	165.1178	114.0837	134.4174	83.7330	83.5831
0.2997	88.2317	80.7991	124.3156	192.1077	134.2656	152.0978	98.2716	102.4674
0.3497	99.0350	91.5864	137.4321	216.2895	152.8189	166.4222	111.9739	120.5066
0.3996	108.6512	101.1787	148.0918	237.4823	169.3505	177.9019	124.7551	137.0228
0.4496	117.2557	109.5226	156.1910	255.8674	183.6166	187.3034	136.7683	151.6051
0.4995	124.7252	116.1338	161.8880	271.7280	196.0538	195.2546	147.9020	163.9359
0.5495	131.1107	120.9450	165.5094	286.0697	206.6120	202.9304	158.0912	173.8069
0.5994	136.6033	124.2556	168.1916	297.8419	215.4244	209.9099	168.1317	181.0188
0.6494	141.3094	126.4382	170.9870	307.0363	222.5494	216.3151	178.1954	185.7284
0.6993	145.1048	127.2726	174.1257	314.6850	228.3914	222.5872	187.6222	188.4614
0.7493	148.3614	126.7816	178.0337	321.2249	233.5568	228.8362	196.5414	189.4980
0.7992	150.8090	125.4744	182.6971	326.3134	238.0018	234.8050	205.0747	189.7301
0.8492	152.2616	123.8983	188.3526	329.8293	242.1069	240.0688	213.0643	190.3057
0.8991	152.9369	121.9180	193.9359	331.7679	246.5332	244.8249	220.8190	191.0588
0.9491	153.1847	119.6815	199.4059	332.4697	251.7013	249.1388	228.4484	192.3826
0.9990	152.9469	117.7821	204.7950	331.1685	256.7430	253.6461	235.4643	193.5063
1.0490	152.5246	116.5439	209.9049	327.8125	261.9353	257.9491	241.7945	193.5405
1.0989	151.5383	116.1537	214.0657	322.3074	266.5931	262.1975	247.4723	192.3075
1.1489	149.8166	116.0389	217.3719	315.3731	269.9915	266.5448	252.1836	189.5685
1.1988	147.8120	116.2596	219.2605	307.6121	271.4083	270.9288	255.4643	184.8550
1.2488	145.6101	116.8752	219.2893	299.9618	270.6150	275.8599	257.2528	178.9530
1.2987	142.8570	117.7142	217.1426	292.2075	268.4413	280.6491	257.1426	172.2076
1.3487	139.8602	118.4563	213.3643	284.9803	266.5031	285.3849	255.5787	165.8901
1.3986	136.9369	119.1048	207.6921	278.6011	266.2934	290.9088	253.8459	161.3984
1.4486	134.1693	119.7268	201.2105	271.4676	268.4256	296.8181	252.7807	159.3460
1.4985	131.4934	120.3296	195.5543	263.2865	273.3264	302.0976	252.9468	159.4404
1.5485	128.9746	120.7830	191.3946	254.2637	279.5043	306.1385	255.5025	160.7343
1.5984	126.7371	120.9349	188.4514	245.6741	286.9128	308.8109	259.4203	163.0368
1.6484	125.0806	121.2398	186.7637	238.0290	294.4042	309.7344	263.9088	166.8181
1.6983	124.3325	122.0568	185.2845	231.6481	301.1086	309.2604	268.5012	171.5283
1.7483	124.2342	123.3251	183.9212	226.7545	306.4770	307.5260	273.0845	176.4035
1.7982	123.8241	124.6153	181.9778	223.5163	309.6500	304.6151	276.7430	181.0787
1.8482	122.6281	125.9363	179.3863	222.3385	309.7583	300.8870	278.7086	185.9289
1.8981	120.3016	127.1537	175.8969	222.8369	306.5432	297.0527	278.6411	189.7151
1.9481	116.5938	128.3798	171.6666	224.0315	299.4230	293.3839	276.4354	192.7840
1.9980	112.0079	129.5703	166.8130	225.3744	288.5112	290.5092	272.1276	194.8849
2.0480	107.0285	130.8262	161.4438	225.8944	274.0224	288.1536	266.4448	195.7478
2.0979	101.9999	132.1257	155.3915	225.5243	257.2025	286.3634	259.9298	195.5243
2.1479	97.0636	133.2772	148.4199	224.8851	239.7056	284.5968	253.2374	194.3420
2.1978	92.3296	133.8460	141.1207	223.7360	222.8569	283.5162	245.9338	192.2855
2.2478	87.6867	133.3395	133.6542	222.4648	207.6068	284.7963	239.1659	189.6469
2.2977	83.5673	131.4514	126.4195	221.7510	194.9139	288.5911	233.6761	186.5273
2.3477	80.2444	128.1609	119.8031	221.8107	185.5153	294.1668	229.6285	183.0971
2.3976	77.6103	123.5244	114.1737	222.4973	179.0528	300.8988	228.3954	179.3405

Table H1: Velocity Spectra

Freq. (Hz)	75-6-u	69-6-u	60-6-u	51-6-u	45-6-u	36-6-u	27-6-u	18-6-u
2.4476	75.5574	117.8275	109.8483	224.0288	175.1013	305.9500	228.7772	175.2726
2.4975	74.4755	111.6133	107.2177	226.5233	172.7771	308.4413	230.4443	170.8790
2.5475	74.5399	105.4920	105.8486	230.1412	171.9817	308.2475	233.4274	166.4027
2.5974	75.8441	100.3116	105.4804	234.9868	172.7271	305.7140	237.3504	161.9219
2.6474	78.0454	96.3654	106.2402	240.5957	174.4637	301.0094	241.4694	157.3615
2.6973	80.4605	93.5154	108.1887	246.4523	176.6732	294.0057	245.6161	152.6942
2.7473	82.3091	91.1279	111.3481	252.8065	178.7119	285.1697	249.6197	147.8322
2.7972	83.4964	89.0069	115.3006	259.8879	179.5802	274.7130	253.0347	143.0208
2.8472	84.0493	87.4375	119.4116	267.4944	179.0604	262.8820	255.8209	138.5732
2.8971	84.0449	86.5074	123.2426	274.7030	177.4184	250.8019	258.1026	134.6862
2.9471	83.6387	86.2911	126.4011	280.1219	174.8809	239.8350	259.9932	131.7648
2.9970	82.8671	86.9130	128.5114	283.0367	172.2676	231.0687	261.8479	130.0099
3.0470	82.0252	88.0583	129.7413	283.0663	169.9312	224.6248	262.4686	129.4366
3.0969	80.9530	89.3765	130.3176	280.1456	168.2546	220.2515	261.1306	130.1008
3.1469	79.8054	90.4419	130.1873	274.6614	167.9186	218.0802	258.5808	131.3516
3.1968	78.8651	91.3645	129.5343	266.9008	169.3025	218.3734	255.5842	132.6672
3.2468	78.1505	92.3065	128.6057	256.7894	171.8856	220.8473	252.6010	133.5734
3.2967	77.8681	93.2636	127.4175	245.4393	175.4833	223.9448	249.9228	133.9120
3.3467	78.0116	94.3100	126.1037	234.0347	180.1863	226.1365	247.8901	133.6672
3.3966	78.4275	95.4105	124.7571	222.9189	185.6242	226.6212	247.1366	132.3315
3.4466	79.1339	96.6427	123.1470	212.8620	191.6999	224.7183	246.9834	130.0058
3.4965	79.9300	97.7621	121.0838	204.3005	197.2026	220.3844	247.0277	126.8181
3.5465	80.3282	98.5218	118.5240	197.2563	201.2284	214.2795	247.5102	122.9572
3.5964	80.3795	98.6493	115.2646	192.1557	203.3764	206.7570	247.8999	118.9689
3.6464	80.1843	97.9423	111.7257	189.2117	203.2139	197.9266	248.0281	115.2262
3.6963	79.8401	96.2147	107.8950	187.6242	200.3395	188.2156	248.2435	111.7391
3.7463	79.5339	93.7324	103.9598	186.9404	194.9949	178.9233	249.2413	108.7176
3.7962	79.4924	90.7671	100.0678	186.6971	187.8739	170.1077	251.0427	106.2556
3.8462	79.6933	87.7318	96.3858	186.1945	179.8868	162.2712	253.3877	104.6936
3.8961	79.9090	84.8181	93.1947	184.7920	171.7401	156.3505	255.7010	104.3765
3.9461	80.0664	82.2762	90.3262	181.9941	163.6842	152.4378	257.3252	105.4793
3.9960	80.1598	80.1598	87.7921	178.0618	155.9639	150.1297	257.6621	107.6123
4.0460	80.1513	78.4924	85.7347	173.2902	149.2165	149.0142	255.9500	110.3749
4.0959	80.0339	77.1668	84.0069	168.3415	143.3975	149.1727	252.6351	113.3336
4.1459	79.7257	76.2016	82.1303	163.8460	138.5560	150.3718	248.1736	116.0437
4.1958	79.0489	75.5244	80.0139	159.6502	134.4334	152.2656	242.5172	118.0279
4.2458	77.9953	74.8110	77.5708	156.1181	130.7706	153.4857	235.5994	119.1796
4.2957	76.5923	74.0579	74.8311	153.3135	128.0978	153.3565	227.7151	119.3775
4.3457	75.2675	73.3989	72.0082	150.8392	126.9379	151.4911	219.1102	118.6376
4.3956	74.1977	72.7032	69.4505	148.0878	126.9449	147.7801	209.9778	116.8790
4.4456	73.4413	72.1076	67.3064	144.9710	127.4554	142.5259	200.8078	114.2964
4.4955	72.8271	71.5234	66.0839	141.6532	127.6272	136.2586	192.3175	111.2187
4.5455	72.5916	70.8643	65.9552	138.0923	127.3195	129.4558	185.9110	107.9556
4.5954	72.7452	70.1718	67.0009	134.2316	126.6033	122.8350	182.6672	104.6832
4.6454	73.1651	69.4023	68.9842	130.2106	125.6116	117.1105	183.0288	101.4555
4.6953	73.4345	68.7392	71.6972	126.6322	124.5663	113.1567	186.6851	98.4604
4.7453	73.5996	68.2374	74.9283	123.6625	123.3303	111.5146	191.5203	95.9500
4.7952	73.6543	67.9000	78.3536	121.8460	121.7501	111.9679	196.0278	94.4175
4.8452	73.4048	67.6874	81.7870	121.4692	120.0156	113.9107	199.5253	94.1422

Table H1: Velocity Spectra

Freq. (Hz)	75-6-u	69-6-u	60-6-u	51-6-u	45-6-u	36-6-u	27-6-u	18-6-u
4.8951	72.7901	67.4055	84.7831	122.5733	118.5104	117.2376	201.5313	95.1118
4.9451	71.9018	66.9072	87.2316	124.8143	117.2483	121.5506	201.7106	97.1712
4.9950	70.6793	66.3836	88.8611	127.8720	116.1837	126.3236	200.2496	99.9500
5.0450	69.0661	65.7868	89.6497	131.7250	115.2278	131.1196	197.9154	103.0694
5.0949	67.4565	65.3166	89.5174	136.1867	114.2277	135.0149	195.5932	106.1268
5.1449	66.0605	64.8772	88.5437	141.1761	113.0335	137.6775	193.7055	108.6088
5.1948	65.1947	64.6233	86.8051	145.9739	111.6363	138.9090	192.3634	110.1817
5.2448	65.1404	64.4061	84.3364	150.3684	110.1408	138.9348	191.9072	110.7702
5.2947	66.1838	64.3306	81.7502	153.7051	108.6472	137.8740	192.2506	110.3415
5.3447	68.4122	64.4571	79.3153	155.0497	107.1612	136.1295	193.2644	109.0853
5.3946	71.2627	64.7352	77.1967	154.3935	105.6802	134.0558	195.3385	107.2446
5.4446	74.2643	65.1174	75.3533	152.0677	104.4819	132.1404	198.8912	104.8086
5.4945	77.1428	65.6043	74.0659	148.3515	103.8461	130.4944	204.3405	102.2526
5.5445	79.6745	65.8687	73.2428	143.3253	103.5713	129.0205	211.4118	99.6347
5.5944	81.4545	65.9580	72.7831	137.5104	103.3286	127.8880	219.0208	97.1747
5.6444	82.2389	65.8701	72.6434	131.3452	103.1232	127.3941	225.6631	95.1081
5.6943	82.2257	65.8261	72.7732	125.2177	103.2946	127.4954	230.1067	93.6143
5.7443	81.5116	65.8871	72.9526	119.4814	103.5697	127.4660	231.5527	92.6556
5.7942	80.1338	65.8801	72.7752	114.3196	104.4115	127.1827	230.4353	92.0698
5.8442	78.1954	65.8057	72.2343	109.7541	105.7800	126.5854	227.0472	91.8124
5.8941	75.7981	65.5424	71.0828	105.5633	107.6263	125.6033	221.9718	91.5354
5.9441	73.1719	64.9690	69.4271	102.2385	109.7281	123.9939	215.8897	91.1231
5.9940	70.3696	64.1358	67.2527	100.0399	111.9679	121.7381	209.7900	90.3895
6.0440	67.6928	62.8576	64.9730	99.1820	114.0503	118.8855	204.3476	89.5721
6.0939	65.3266	61.1828	63.0719	99.6962	115.9669	115.7841	199.6362	88.5444
6.1439	63.3436	59.1965	61.8691	101.2515	117.6557	113.5393	194.8845	87.4891
6.1938	61.4363	56.9582	61.7026	103.1268	118.9829	112.4175	189.7161	86.4654
6.2438	59.4222	54.6832	62.5004	105.0207	120.0683	112.9503	184.1297	85.7898
6.2937	57.2601	52.7286	64.1957	106.5523	120.9649	114.8600	178.4893	85.2167
6.3437	54.8476	51.3269	66.4185	107.5892	121.6087	117.8025	173.9443	84.7518
6.3936	52.2421	50.5030	68.8591	108.3076	122.1178	121.6702	171.0927	84.0758
6.4436	49.7446	50.2407	71.4595	108.8324	122.8150	125.9079	170.1755	83.0580
6.4935	47.7013	50.5324	74.0259	109.2207	123.4414	130.9739	171.1037	81.8181
6.5435	46.3672	51.2814	76.4935	109.1456	123.6722	136.4320	173.4028	80.2887
6.5934	45.9494	52.4373	78.5274	108.6592	123.6263	142.0218	176.5713	78.5933
6.6434	46.5769	53.8315	79.9865	107.5566	123.6337	147.1513	180.3683	76.7977
6.6933	48.1516	55.2063	80.5873	106.0888	123.7591	151.4694	184.8689	75.0319
6.7433	50.4062	56.3200	80.2453	104.6560	123.8070	154.4890	189.3519	73.1648
6.7932	52.9530	56.9610	78.8691	103.4604	123.9759	155.9039	193.5383	71.1248
6.8432	55.4710	57.0586	76.6438	102.7849	124.4778	155.8881	197.3579	68.9110
6.8931	57.7573	56.6199	73.8940	102.7072	124.9719	154.5433	200.7271	66.5460
6.9431	59.5579	55.6767	70.9585	103.1745	125.2535	152.1928	203.5023	64.2306
6.9930	60.7552	54.3426	68.1887	103.9859	124.9649	149.0908	205.4543	62.1748
7.0430	61.3445	52.8577	65.9647	104.8703	123.8159	145.5084	206.3599	60.4078
7.0929	61.3961	51.3526	64.3610	105.4714	121.6432	141.7161	206.1197	58.7860
7.1429	60.9575	49.8932	63.2861	105.6435	118.7150	137.8580	204.7155	57.3146
7.1928	60.0095	48.5442	62.7716	105.5184	115.0129	133.4984	202.4054	56.0247
7.2428	58.7753	47.4548	62.4836	105.0206	110.8873	129.0667	200.1910	55.0091
7.2927	57.4665	46.5858	62.2067	103.9939	106.9110	125.0698	198.2156	54.0754

Table H1: Velocity Spectra

Freq. (Hz)	75-6-u	69-6-u	60-6-u	51-6-u	45-6-u	36-6-u	27-6-u	18-6-u
7.3427	56.2891	45.8405	62.0311	102.5775	103.3118	121.8888	196.7109	53.3227
7.3926	55.2375	45.1318	61.9648	100.8351	100.3915	120.4255	195.2386	52.9236
7.4426	54.3161	44.5291	61.8182	99.1354	98.3912	120.7190	193.3587	53.0881
7.4925	53.6313	44.0784	61.3861	97.3276	97.1028	122.9519	191.2835	54.0059
7.5425	53.1746	43.7012	60.6040	95.1864	96.7703	126.1860	189.6939	55.6938
7.5924	52.8279	43.3982	59.4181	92.7791	97.6383	129.3745	188.9748	57.9148
7.6424	52.3810	43.2713	57.8224	90.3332	99.6569	132.2135	189.7608	60.3291
7.6923	51.6999	43.4692	55.9153	88.4615	102.6153	134.3076	192.0767	62.8153
7.7423	50.7198	43.9917	53.7858	87.4106	106.3018	135.4128	195.4157	65.4611
7.7922	49.4571	44.8909	51.6077	87.1168	110.0259	135.1947	199.2466	68.3142
7.8422	47.9080	46.0965	49.6254	87.2837	113.1629	133.7879	203.1130	71.2542
7.8921	46.2004	47.3289	48.1102	87.8391	115.0668	131.4035	206.9309	74.1463
7.9421	44.3884	48.5103	47.2158	88.4750	115.4781	128.5826	210.3068	76.8636
7.9920	42.6133	49.4625	46.8411	88.9510	114.2856	125.3146	212.9069	79.1927
8.0420	40.9659	50.0775	46.7562	89.1054	111.6230	121.8363	214.8018	80.9829
8.0919	39.4885	50.2183	47.0058	88.6872	107.9459	118.3845	215.7301	82.4565
8.1419	38.1774	49.9424	47.5324	87.6883	103.5650	115.6150	215.4347	83.4545
8.1918	37.0679	49.3474	48.3152	86.2597	98.8750	113.8660	213.8879	83.9660
8.2418	36.2392	48.5524	49.1541	84.3136	94.3686	113.3248	211.4022	84.0664
8.2917	35.7289	47.7104	49.9326	82.1707	90.1308	113.9280	208.1217	83.5803
8.3417	35.4439	46.9554	50.6758	79.9802	86.3366	115.2823	204.1214	82.5912
8.3916	35.3622	46.3216	51.3398	77.8237	83.1775	116.9789	200.2236	81.2894
8.4416	35.7586	45.7872	51.8314	75.8900	80.7946	118.3512	197.0269	79.8491
8.4915	36.6833	45.3786	52.0954	74.4025	79.3870	119.2207	194.9648	78.1897
8.5415	38.0865	45.0308	52.1715	73.3886	78.9918	119.1539	194.0629	76.3952
8.5914	39.8813	44.8385	52.1068	72.8894	79.2900	118.5613	193.9079	74.4960
8.6414	41.9367	45.0044	51.9089	73.0198	79.8206	117.7823	194.2587	72.6310
8.6913	44.1518	45.4816	51.6785	73.7718	80.3685	117.0718	194.9459	70.8862
8.7413	46.5212	46.0404	51.5737	74.8343	80.7521	116.1719	195.8051	69.3010
8.7912	48.8439	46.6637	51.6307	75.7450	81.0549	115.3405	196.7471	67.7274
8.8412	50.9960	47.3800	51.9244	76.3526	81.4805	114.8472	197.3356	66.0614
8.8911	52.8309	47.9942	52.4308	76.5968	82.0737	114.6063	197.1157	64.3805
8.9411	54.1741	48.3714	52.9671	76.5179	82.7588	114.4461	196.2571	62.8738
8.9910	55.0069	48.4975	53.4785	76.2167	83.5713	113.8261	194.0258	61.7232
9.0410	55.3490	48.3874	53.7940	75.7997	84.4068	112.4700	189.8610	60.9996
9.0909	55.2181	48.0000	53.8363	75.1727	85.2363	110.6363	183.7271	60.8090
9.1409	54.7540	47.3864	53.5017	74.4435	85.8422	108.5025	175.8709	61.0246
9.1908	54.1246	46.6157	52.6633	73.6826	86.1454	106.2456	167.4564	61.6243
9.2408	53.5227	45.7604	51.3326	73.0208	86.2167	104.0514	159.6810	62.4216
9.2907	53.1800	44.7998	49.6309	72.4953	86.0319	102.0119	153.2036	63.1953
9.3407	53.1486	43.7612	47.7497	72.1289	85.6262	100.1323	148.5171	63.7876
9.3906	53.5546	42.6333	45.8449	71.9226	84.7502	98.5074	145.7421	64.2129
9.4406	54.4251	41.4254	44.0782	71.8713	83.4549	97.0494	145.4796	64.5171
9.4905	55.5669	40.3251	42.5934	71.8241	82.0169	96.0439	146.9129	64.5923
9.5405	56.7183	39.4977	41.5680	71.5251	80.7126	95.4050	150.0721	64.3793
9.5904	57.7054	39.0042	41.0853	70.7772	79.6962	95.5012	155.0768	63.9200
9.6404	58.3244	38.7930	41.2320	69.4976	78.9742	96.5004	162.2479	63.2989
9.6903	58.4034	38.7031	41.9687	67.8224	78.5011	98.2596	170.6462	62.7059
9.7403	57.9256	38.7469	43.2469	66.0392	78.3510	100.7147	179.1241	62.3087

Table H1: Velocity Spectra

Freq. (Hz)	75-6-u	69-6-u	60-6-u	51-6-u	45-6-u	36-6-u	27-6-u	18-6-u
9.7902	56.7832	38.9650	44.8195	64.5859	78.7132	103.6782	186.6991	62.2461
9.8402	55.0264	39.3214	46.5835	63.8924	79.4301	106.7662	192.5727	62.5640
9.8901	52.8230	39.5604	48.4417	64.2065	80.2779	109.5823	196.4174	63.1483
9.9401	50.4062	39.5318	50.2472	65.4059	81.2106	111.8261	198.6032	63.8651
9.9900	47.9120	39.2307	51.9180	67.2926	82.1478	113.4864	199.5003	64.6453
10.0400	45.5414	38.7644	53.4028	69.6174	83.0408	114.7572	199.7960	65.3704
10.0899	43.5480	38.2205	54.8386	72.2033	83.7865	116.0339	199.8809	65.8669
10.1399	42.2834	37.9435	56.1446	74.8629	84.2930	117.4200	199.8574	66.0006
10.1898	41.8189	38.1099	57.1852	77.4017	84.4938	119.1188	199.9239	65.5816
10.2398	42.0651	38.7064	57.9061	79.7066	84.3862	120.7272	199.6761	64.5619
10.2897	42.8463	39.6977	58.2191	81.6591	83.9434	122.1387	198.7970	63.1479
10.3397	43.8507	41.0589	58.0367	83.0175	83.1208	123.2492	198.0053	61.6143
10.3896	44.9454	42.7324	57.3090	83.4804	81.9220	123.9479	197.4024	60.1662
10.4396	45.9760	44.5771	56.0815	83.1723	80.7399	124.1268	196.9953	58.8898
10.4895	46.7622	46.4790	54.4930	82.4580	79.7202	123.9859	196.6781	57.7237
10.5395	47.2907	48.1971	52.7713	81.5336	78.7195	123.4175	196.2455	56.6077
10.5894	47.5782	49.3996	51.0409	80.5218	77.5674	122.7311	196.0098	55.8697
10.6394	47.7815	49.8988	49.3668	79.5189	76.3058	121.5019	195.3394	55.7398
10.6893	48.0270	49.6518	47.7812	78.6305	75.1672	119.6133	193.7970	56.2364
10.7393	48.4020	48.7564	46.2219	77.9673	74.2193	116.8436	191.3743	57.3479
10.7892	49.0153	47.2783	44.7428	77.6175	73.4097	113.3945	189.1347	58.7688
10.8392	49.7736	45.4054	43.3568	77.2943	72.5251	109.6927	186.8678	60.2118
10.8891	50.6343	43.3277	42.1081	76.6266	71.5958	106.2232	184.6791	61.4581
10.9391	51.4794	41.2951	41.0763	75.3704	70.8197	103.1448	182.9018	62.3529
10.9890	52.0879	39.7582	40.3736	73.6922	70.2087	100.8351	180.7691	62.9010
11.0390	52.4353	39.0008	40.1378	71.8087	69.6561	99.4614	178.7214	63.1100
11.0889	52.5059	39.0884	40.4523	69.9710	69.0728	99.3344	176.8680	62.9628
11.1389	52.1746	39.9552	41.0580	68.2035	68.3594	100.2055	175.7718	62.5895
11.1888	51.1888	41.2979	41.7902	66.5845	67.4237	101.7286	176.2236	62.0419
11.2388	49.5069	42.8311	42.5951	65.2862	66.2078	103.2396	178.5845	61.4650
11.2887	47.2771	44.4549	43.3825	64.5714	64.7858	104.6237	182.8769	60.9251
11.3387	44.7425	46.1145	44.1529	64.4718	63.3153	105.9715	188.4492	60.5600
11.3886	42.1720	47.5246	44.9508	64.9492	62.0451	107.2123	195.2006	60.4962
11.4386	39.7720	48.4653	45.6743	65.9893	61.2079	108.1176	203.0352	60.6932
11.4885	37.6938	48.8721	46.1608	67.3801	60.6708	108.4744	211.0437	61.1648
11.5385	36.1963	48.7732	46.4655	68.6772	60.4848	108.2773	219.3469	61.9617
11.5884	35.2635	48.2309	46.4463	69.4840	60.8275	107.5751	227.8279	63.1336
11.6384	34.8337	47.3101	45.9717	69.8886	61.6835	106.4215	235.6776	64.4884
11.6883	34.7259	46.1220	45.1051	69.9779	63.0116	105.0778	242.1816	65.6999
11.7383	34.8980	44.8051	43.9599	69.7842	64.5724	104.0952	247.5607	66.6383
11.7882	35.2821	43.5220	42.7204	69.3500	66.1200	103.7597	251.6781	67.0631
11.8382	35.8106	42.3097	41.5402	68.7208	67.6080	103.9512	254.1662	67.0989
11.8881	36.3538	41.1328	40.6454	68.0237	69.0342	104.3181	254.5242	67.0132
11.9381	36.8649	40.0523	40.1717	67.5100	70.4348	104.9598	252.6102	66.8534
11.9880	37.4145	39.2127	40.1118	67.3726	71.9400	105.9380	248.8709	66.7372
12.0380	38.1123	38.6299	40.3755	67.5813	73.3836	107.1382	243.8899	66.8109
12.0879	38.9351	38.1252	40.8088	67.9944	74.6911	108.1988	238.3734	67.0878
12.1379	39.7516	37.6760	41.2689	68.7005	75.7162	108.8163	232.1980	67.7416
12.1878	40.5122	37.4409	41.6213	69.7630	76.4784	108.7517	225.4743	68.7758

Table H1: Velocity Spectra

Freq. (Hz)	75-6-u	69-6-u	60-6-u	51-6-u	45-6-u	36-6-u	27-6-u	18-6-u
12.2378	41.3148	37.5945	41.8043	71.3341	77.0614	107.9496	218.2000	70.1960
12.2877	42.1345	38.0919	41.8642	73.4804	77.5968	106.7310	210.4883	71.8462
12.3377	42.8982	38.8761	41.8618	75.9262	78.1470	105.4873	202.8318	73.5450
12.3876	43.5424	39.6651	41.7834	78.4259	78.6365	104.3655	195.9718	74.9574
12.4376	44.0042	40.3724	41.5416	81.0434	78.8046	103.2072	190.1709	75.6952
12.4875	44.2432	40.9965	41.1713	83.8036	78.6088	102.2601	185.6891	75.5244

Table H1: Velocity Spectra

Freq. (Hz)	69-3-u	60-3-u	51-3-u	45-3-u	36-3-u
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0500	57.6500	77.5500	54.2000	23.4500	12.8200
0.0999	111.4884	153.0468	104.5953	46.4036	25.5844
0.1499	158.7441	225.4496	148.2061	68.5793	38.3294
0.1998	197.8020	293.7060	182.3774	89.6702	50.9690
0.2498	228.5670	356.9642	206.2099	109.4873	63.3743
0.2997	251.2385	413.2863	219.9798	127.8221	75.2247
0.3497	267.3107	461.6040	225.9412	145.0905	86.3409
0.3996	279.0806	499.8996	227.2925	161.3984	96.3436
0.4496	290.0370	529.6288	227.4976	176.7827	105.3413
0.4995	302.8968	551.4480	230.5692	190.8090	113.1368
0.5495	319.2046	566.5345	239.4721	203.7546	119.9559
0.5994	336.9227	572.9065	250.8489	216.8030	126.1737
0.6494	354.2477	570.7577	262.0978	230.4721	132.1529
0.6993	370.6290	562.5169	273.1466	244.1956	138.3215
0.7493	385.4399	552.4589	283.6850	257.3846	144.9146
0.7992	398.4811	543.8556	293.7859	269.4902	151.6082
0.8492	409.3993	537.4587	304.8628	279.8963	157.9512
0.8991	416.8228	533.8856	317.4722	287.9817	163.1867
0.9491	420.8309	534.4382	331.8054	292.9872	166.9467
0.9990	422.7768	540.7587	346.6530	294.2055	168.8310
1.0490	424.5303	554.6063	361.6952	291.6220	169.4135
1.0989	427.5820	575.1643	376.3733	285.9338	169.0108
1.1489	431.1822	601.3343	390.0516	277.1147	167.8543
1.1988	434.3252	629.7296	401.9576	266.1336	166.3934
1.2488	435.9561	655.9946	411.4796	254.0059	164.8416
1.2987	434.9346	680.7785	417.4022	241.5582	163.7661
1.3487	431.5840	703.8865	418.9062	231.0323	163.8671
1.3986	426.7129	725.3140	415.6639	222.2375	164.8949
1.4486	421.2529	744.0010	407.2015	216.4208	166.8787
1.4985	415.9836	757.1921	394.7049	214.8849	169.9299
1.5485	411.2816	765.5784	378.6083	218.3385	173.7417
1.5984	407.9117	770.5886	359.7998	225.5342	178.3814
1.6484	406.1658	772.1106	340.2298	234.4025	183.1372
1.6983	407.5920	770.3489	322.5072	243.7061	187.6622
1.7483	411.5498	765.2309	308.9246	251.5804	191.4389
1.7982	418.2613	757.2220	301.0187	257.3224	193.6661
1.8482	428.4128	747.0424	297.7450	260.7810	194.8003
1.8981	441.6879	734.1851	297.6221	261.3684	194.7451
1.9481	456.2450	720.2126	300.5918	259.6817	193.6606
1.9980	470.7288	706.8924	305.6940	255.5442	191.8679
2.0480	482.7136	693.8624	312.5248	250.0608	189.4400
2.0979	491.3282	681.6077	319.9298	244.1956	186.1257
2.1479	495.3057	671.4335	326.6956	237.7725	181.6049
2.1978	493.6259	661.3180	331.4282	231.6481	176.1976
2.2478	486.1991	649.3894	332.8992	226.1287	170.2933
2.2977	472.4071	638.0713	330.8688	221.0158	164.4004
2.3477	454.0452	627.3054	325.6260	216.8805	159.1506
2.3976	432.5270	616.4230	317.9218	213.4104	155.1966

Table H1: Velocity Spectra

Freq. (Hz)	69-3-u	60-3-u	51-3-u	45-3-u	36-3-u
2.4476	409.9730	607.9838	308.3976	210.1754	152.9995
2.4975	388.3613	602.1473	297.2025	206.5183	152.0728
2.5475	371.9350	600.4458	284.8105	202.1441	151.9329
2.5974	362.8568	607.2721	271.9478	197.2985	151.9479
2.6474	361.6348	622.1390	259.4452	192.0689	151.8813
2.6973	369.5301	643.0363	248.9068	186.8420	151.5613
2.7473	384.0725	668.9676	241.2679	181.8713	150.6070
2.7972	401.9576	698.4608	235.9438	177.9858	148.9509
2.8472	420.8162	729.1679	233.5273	175.5584	146.6593
2.8971	438.3312	759.0402	233.7960	174.0288	143.5803
2.9471	452.6746	784.2233	236.3574	173.3779	139.8988
2.9970	463.0365	801.3978	240.1796	173.9459	135.6742
3.0470	469.8474	807.4550	244.5522	175.5072	130.9296
3.0969	472.8966	800.5487	249.2385	176.9878	125.9819
3.1469	472.0350	780.7459	253.7660	178.3978	121.6277
3.1968	466.7328	749.6496	257.5022	180.3315	118.3455
3.2468	457.4741	711.3739	259.8739	183.0221	116.3978
3.2967	445.7138	670.5488	260.7690	186.3954	115.4834
3.3467	433.7323	629.8489	260.5741	190.0591	115.8293
3.3966	422.1974	591.0084	258.5832	193.5043	117.8281
3.4466	412.2134	557.6599	254.2901	196.1460	121.0446
3.4965	404.5451	532.1673	248.6361	197.5872	124.9999
3.5465	400.7545	512.8239	242.6161	198.0011	129.5182
3.5964	399.9197	498.4610	237.1826	197.3345	134.2896
3.6464	401.1040	488.9822	232.3121	195.4835	138.6726
3.6963	404.3752	479.0405	228.4313	192.5772	142.3076
3.7463	408.3467	469.0368	225.5273	189.4504	144.9443
3.7962	414.5450	458.9606	222.8749	186.3175	146.4574
3.8462	424.6205	450.3900	220.8873	182.9253	146.6556
3.8961	437.1424	442.9866	219.5452	179.0648	145.6362
3.9461	451.4338	436.4387	219.2453	174.8122	143.4802
3.9960	466.7328	429.9696	220.2995	170.5493	140.0198
4.0460	480.6648	423.2116	222.1254	166.3311	135.7028
4.0959	492.3272	417.3722	224.0457	162.7301	131.1098
4.1459	498.7518	412.6829	225.2053	160.1147	126.4914
4.1958	498.8806	409.0485	225.0208	158.2236	121.9719
4.2458	492.9374	408.0214	223.4989	156.2030	117.9908
4.2957	481.1184	408.5640	221.2715	153.4424	114.5234
4.3457	464.1208	410.8859	219.0233	149.6225	111.5976
4.3956	443.0765	413.2743	217.0987	144.8790	109.5823
4.4456	417.8864	414.9078	215.7450	139.4140	108.1614
4.4955	391.1085	414.3053	215.5143	133.7411	107.1278
4.5455	364.4127	411.0496	216.6840	128.5467	106.4102
4.5954	340.2894	405.7279	218.4194	124.5353	105.9240
4.6454	320.2539	399.2257	220.0991	121.9418	105.4041
4.6953	305.3354	392.0106	221.5243	120.6223	104.8930
4.7453	296.0118	385.3184	222.7918	120.5781	104.5390
4.7952	292.6031	378.7249	224.6072	121.0308	104.1517
4.8452	294.2974	372.2567	227.0461	121.6145	103.5419

Table H1: Velocity Spectra

Freq. (Hz)	69-3-u	60-3-u	51-3-u	45-3-u	36-3-u
4.8951	299.3843	366.1535	229.6781	122.5733	102.7481
4.9451	306.5467	359.6571	231.7768	124.1715	101.6713
4.9950	314.7350	352.9967	232.5672	126.5234	100.0998
5.0450	323.8890	346.7429	231.5151	129.9088	98.3775
5.0949	332.9517	341.4602	228.4044	134.1997	96.6503
5.1449	341.9301	338.3801	223.1343	139.1181	95.0263
5.1948	350.5971	339.0126	216.3115	144.8310	93.7661
5.2448	358.8492	343.4295	209.1102	150.7356	93.2001
5.2947	366.8168	349.8738	201.5692	156.6702	92.9749
5.3447	374.2893	357.8811	194.3867	162.3185	93.1047
5.3946	381.0745	366.5631	188.0558	167.3944	93.9739
5.4446	387.1111	374.8607	182.6663	171.7227	95.2261
5.4945	392.5271	382.9117	178.6811	175.2196	96.3735
5.5445	397.7624	390.3882	175.9270	177.7567	97.3060
5.5944	401.7339	397.5381	174.2096	179.3005	97.7901
5.6444	404.0826	404.8164	173.0573	179.7741	97.5352
5.6943	404.5800	411.0146	172.5942	179.0288	96.4614
5.7443	401.6415	415.3129	172.6737	177.2117	94.7810
5.7942	394.7588	417.4142	172.8410	174.3475	92.7072
5.8442	384.9575	416.9837	172.4623	170.5922	90.4098
5.8941	373.6859	415.4751	171.1647	166.1547	88.2347
5.9441	361.5202	413.4122	169.1096	161.1446	86.5461
5.9940	349.0906	411.0086	166.2136	155.8440	85.5344
6.0440	337.5574	408.2118	162.6440	150.5560	85.3413
6.0939	327.0596	404.5740	158.5633	145.7051	85.8631
6.1439	317.9468	399.9065	154.1505	141.4940	86.8133
6.1938	310.2474	393.5541	150.0758	137.9979	88.0139
6.2438	303.9482	384.3059	146.7917	134.9910	89.2239
6.2937	299.3284	371.7689	144.2516	132.4194	90.3146
6.3437	295.9336	356.1353	142.5429	130.4265	91.0955
6.3936	293.0826	338.5411	141.8740	129.0868	91.4924
6.4436	290.6064	319.8603	141.8881	128.4854	91.3702
6.4935	288.5062	300.7789	142.4674	128.7012	90.7791
6.5435	286.6707	282.0903	143.1718	129.6267	89.5805
6.5934	284.4393	264.6591	143.7361	130.9449	87.9560
6.6434	281.9459	249.4597	144.0953	132.4030	86.0320
6.6933	278.9767	236.0058	144.5753	133.3305	84.0678
6.7433	274.8569	225.0914	145.2507	133.1802	82.2683
6.7932	269.6900	217.3145	145.9859	131.7881	80.8391
6.8432	264.3528	212.1392	147.0604	129.4733	79.4496
6.8931	258.9738	209.6881	148.6152	126.4195	78.0299
6.9431	253.4926	209.8205	150.5958	122.9623	76.4435
6.9930	247.9718	211.3285	153.0068	119.5104	75.1048
7.0430	243.0539	214.3185	156.1433	116.4208	74.1628
7.0929	239.2435	218.3904	159.9449	113.4864	73.6952
7.1429	236.9300	223.0013	164.2153	110.5721	73.7147
7.1928	235.3484	227.0767	168.8869	107.7481	74.3736
7.2428	234.1597	230.0313	173.3202	105.0930	75.9770
7.2927	233.5123	232.0537	177.5043	102.7541	78.5424

Table H1: Velocity Spectra

Freq. (Hz)	69-3-u	60-3-u	51-3-u	45-3-u	36-3-u
7.3427	232.4699	233.0573	181.2913	101.5495	81.9445
7.3926	231.0188	233.2365	184.5193	101.7222	86.1977
7.4426	229.3065	232.1347	186.7348	102.9312	90.7253
7.4925	227.5472	229.1207	187.7621	105.0449	95.3046
7.5425	225.7470	224.6157	187.4311	108.0840	99.5610
7.5924	223.4443	218.7370	186.2416	111.8361	102.9529
7.6424	221.2475	211.6945	184.1054	116.3173	105.2358
7.6923	219.3075	204.2306	181.3844	121.0768	106.0768
7.7423	217.9457	197.2738	177.8406	125.7350	105.4501
7.7922	217.6361	191.6102	173.2206	129.8960	103.3246
7.8422	218.1700	187.8207	167.7447	133.2390	99.9881
7.8921	219.4004	186.4903	161.4724	135.3495	95.8890
7.9421	221.1875	187.8307	154.7915	136.0482	91.4930
7.9920	223.0567	191.4084	147.8520	135.3046	87.1128
8.0420	224.9347	197.0290	141.3784	133.0951	82.9934
8.0919	226.0068	204.7251	135.4584	129.3895	79.3573
8.1419	225.7749	213.8877	130.0261	124.8967	76.6723
8.1918	224.1276	223.5542	125.4165	119.6822	75.2499
8.2418	220.7978	233.2429	121.8138	114.3962	75.1899
8.2917	216.4134	242.5322	119.2346	109.1188	76.1841
8.3417	211.2118	249.8339	117.6180	104.3547	77.9532
8.3916	206.4334	254.6851	116.3915	100.1957	80.1985
8.4416	203.0205	256.6246	115.9032	96.7407	82.4913
8.4915	202.0977	255.5092	115.9939	94.1707	84.6857
8.5415	203.8002	251.3763	116.5915	93.0169	86.5254
8.5914	207.3964	244.3394	117.5304	93.0449	87.7182
8.6414	212.3192	234.7004	118.4736	94.0184	88.1423
8.6913	217.5432	223.7141	119.2446	95.8650	87.8690
8.7413	221.8542	212.5010	119.7558	98.6019	87.1333
8.7912	225.0547	201.3185	119.8241	102.0658	86.2505
8.8412	226.9536	190.7931	120.0635	106.0944	85.4590
8.8911	227.8789	181.6452	120.9190	110.4275	84.9722
8.9411	227.8192	174.4409	122.3142	114.7143	84.6812
8.9910	226.4833	169.6602	124.0758	118.6812	84.5514
9.0410	224.3072	167.5297	125.8507	121.9631	84.6328
9.0909	221.8180	168.0907	127.5453	124.2726	84.7908
9.1409	219.6558	170.3864	128.9781	125.2303	85.0561
9.1908	218.6491	173.4304	130.0498	124.8111	85.2631
9.2408	218.9146	177.2385	131.0345	123.1799	85.0523
9.2907	220.2825	181.0757	131.7421	120.5933	84.3874
9.3407	222.8691	184.8525	132.0775	117.4126	83.3284
9.3906	226.2196	188.3754	132.1257	114.1897	81.8579
9.4406	230.2562	192.2106	131.8852	111.1159	79.9052
9.4905	233.9408	196.4534	131.4434	108.3815	77.5564
9.5405	236.0320	201.4000	130.4186	106.2812	74.7975
9.5904	235.6361	207.2485	129.2786	104.8231	71.7937
9.6404	233.2013	214.2097	128.0245	103.7307	68.9385
9.6903	228.9818	222.5862	126.9429	103.2017	66.4173
9.7403	223.3451	231.6243	125.8447	103.0524	64.4029

Table H1: Velocity Spectra

Freq. (Hz)	69-3-u	60-3-u	51-3-u	45-3-u	36-3-u
9.7902	216.9508	240.6431	125.0209	102.6992	62.9412
9.8402	209.9899	248.9571	124.9705	101.6493	61.9539
9.8901	202.8460	255.8569	125.8021	100.0878	61.4670
9.9401	195.9194	260.2318	126.7363	97.9299	61.4497
9.9900	190.3095	261.4383	127.8720	95.4545	61.8281
10.0400	186.2420	259.2328	129.4156	92.5889	62.6195
10.0899	184.3425	253.8619	131.1687	89.4470	63.6471
10.1399	184.1406	246.2982	132.9341	86.5846	64.6114
10.1898	185.4544	237.2185	134.6073	84.2289	65.4491
10.2398	187.1835	227.5284	135.8821	82.6249	65.9546
10.2897	189.2276	217.6272	136.5443	82.1118	66.2245
10.3397	191.5946	208.1382	136.3806	82.7796	66.1120
10.3896	193.9738	199.7920	135.4804	84.7168	65.6207
10.4396	196.6821	193.4458	133.7313	87.9119	64.7046
10.4895	199.6152	189.0208	131.2236	92.1293	63.5034
10.5395	202.8854	186.2330	127.8441	97.0161	62.2884
10.5894	206.5992	184.7850	124.1078	102.1877	61.1644
10.6394	210.9793	184.8064	120.4380	107.2452	60.3148
10.6893	216.3514	186.1007	117.1547	112.1308	59.7318
10.7393	222.5183	187.9378	114.9105	116.7362	59.3669
10.7892	228.7310	189.7820	113.9340	120.7311	59.2543
10.8392	234.2351	190.7699	114.2452	123.6753	59.3988
10.8891	238.4713	190.3415	115.4245	125.7691	59.7267
10.9391	240.7696	188.3713	117.1578	126.6748	60.2526
10.9890	240.8789	184.7251	119.2307	126.1537	60.8461
11.0390	238.5528	179.3838	121.3186	124.5199	61.3879
11.0889	234.0867	172.8760	122.8650	121.7561	61.9426
11.1389	227.9019	166.3038	123.9760	118.2951	62.5895
11.1888	221.4264	160.1117	124.6432	114.1258	63.4853
11.2388	215.4478	154.9831	124.5259	109.3086	64.5781
11.2887	210.5343	150.7041	123.6113	104.4543	65.8357
11.3387	207.4982	147.6299	122.0044	100.0527	67.1364
11.3886	206.2475	146.6852	120.1497	96.3703	68.3316
11.4386	207.1530	147.6723	118.5039	93.6249	69.2607
11.4885	210.3544	150.3845	116.9529	91.5404	69.7926
11.5385	214.8469	154.5005	116.0773	90.1272	69.9233
11.5884	219.9478	159.9199	115.6754	89.5783	69.5188
11.6384	224.5047	165.9636	115.6042	90.1394	68.5385
11.6883	227.6881	171.5842	115.3752	91.7181	67.0558
11.7383	228.4273	175.8397	114.7654	94.0238	65.1006
11.7882	226.8050	178.1197	113.4261	96.5807	62.8429
11.8382	223.1501	178.6384	111.1370	99.2278	60.7063
11.8881	217.9089	177.4893	108.1698	101.8216	58.8699
11.9381	211.6625	175.4901	104.9240	103.9809	57.4461
11.9880	204.7550	172.9868	101.7062	105.4464	56.4994
12.0380	197.5436	170.6988	98.5190	106.0909	56.0008
12.0879	190.0218	168.7471	95.5186	105.7208	56.0758
12.1379	182.5540	167.7458	92.8671	104.2524	56.6840
12.1878	175.8700	168.5573	90.4822	101.9753	57.7092

Table H1: Velocity Spectra

Freq. (Hz)	69-3-u	60-3-u	51-3-u	45-3-u	36-3-u
12.2378	169.4935	170.7173	88.3324	99.2975	58.8761
12.2877	163.6722	174.3625	86.4808	96.5567	59.9394
12.3377	158.5394	179.0200	85.0314	93.8035	60.7138
12.3876	154.1017	184.5752	83.7897	91.0736	61.1452
12.4376	150.3706	190.2953	82.3742	88.5433	61.2676
12.4875	147.3525	196.3035	80.6193	86.3511	61.1638

Table H1: Velocity Spectra

Freq. (Hz)	75-12-v	69-12-v	60-12-v	51-12-v	45-12-v	36-12-v	27-12-v	18-12-v
2.4476	70.1482	78.0050	84.5646	87.2080	113.0546	87.0611	90.9283	80.5016
2.4975	70.3046	79.5454	84.3656	84.5903	114.5354	87.8870	90.2097	80.3446
2.5475	70.6422	80.8577	83.7363	82.1059	115.5291	88.7804	89.3408	80.2463
2.5974	71.0649	81.9220	82.4675	79.5843	115.9220	89.5843	88.5194	80.2337
2.6474	71.6122	82.6783	80.7986	76.8011	115.3207	90.1704	87.9731	80.5074
2.6973	72.1258	83.0768	79.0848	73.6093	113.4484	90.4674	87.5274	81.0539
2.7473	72.5562	83.0509	77.6112	70.3034	110.5239	90.5785	87.1444	81.8146
2.7972	72.7272	82.3775	76.4195	67.3845	106.7691	90.5733	86.8810	82.6293
2.8472	72.4897	81.2021	75.6786	65.3717	102.6131	90.4840	86.5549	83.0813
2.8971	72.0509	79.6413	75.4695	64.4894	98.2986	90.2157	86.1308	83.0599
2.9471	71.5556	77.9508	75.5636	64.4531	93.8946	89.7687	85.5838	82.6956
2.9970	70.9090	76.2437	75.9740	65.0349	89.7302	89.2507	84.8750	82.1178
3.0470	70.2029	74.6820	76.4188	65.9371	86.0778	88.7896	84.3105	81.2635
3.0969	69.5254	73.4585	76.6483	66.8311	83.0898	88.3855	84.0808	80.4265
3.1469	68.8227	72.6619	76.6585	67.4066	80.9068	88.0188	84.1166	79.8369
3.1968	68.2517	72.2796	76.3076	67.5804	79.2487	87.6563	84.3955	79.2167
3.2468	67.8581	72.1114	75.4556	67.4360	77.7933	87.0467	84.7415	78.6050
3.2967	67.4834	72.0329	74.1428	66.9560	76.4175	86.2746	84.9889	77.9670
3.3467	67.1348	71.9875	72.3891	66.1308	75.1334	85.3743	85.1735	77.5096
3.3966	66.9470	71.7362	70.4455	65.1808	74.0459	84.4395	84.9490	77.2047
3.4466	66.7951	71.2068	68.3805	64.1068	73.1369	83.4422	84.3728	76.9281
3.4965	66.7482	70.5244	66.3286	62.9370	72.1328	82.4475	83.6712	76.5384
3.5465	66.8515	69.7951	64.5818	61.7091	71.1783	81.4986	82.9172	76.0015
3.5964	67.0009	69.0509	63.3686	60.4195	70.3815	80.7032	82.1777	75.3446
3.6464	67.0573	68.3335	62.7181	59.0717	69.6827	80.1114	81.5335	74.6053
3.6963	66.9400	67.5314	62.5784	57.9210	69.2317	79.8031	80.7642	73.8151
3.7463	66.7216	66.5718	62.7131	57.0936	68.8945	79.9086	79.7213	72.9030
3.7962	66.4715	65.3326	62.9410	56.7912	68.6733	80.3656	78.5434	71.8241
3.8462	66.3470	63.9238	63.3854	56.8084	68.5008	81.0010	77.1932	70.9624
3.8961	66.2727	62.2986	63.8960	56.8051	68.1818	81.8181	75.7402	70.6753
3.9461	66.2156	60.5726	64.1241	56.7449	67.7151	82.6708	74.1867	71.3060
3.9960	66.1338	58.8211	64.0958	56.7032	67.2127	83.4764	72.6073	72.7672
4.0460	66.1116	57.2914	63.6031	56.6845	66.6376	83.9950	71.1691	74.6487
4.0959	66.0669	56.0729	62.7082	56.8511	65.7802	84.1707	69.9580	76.6752
4.1459	66.0856	55.1405	61.5252	57.2134	64.5931	84.0374	68.8219	78.5648
4.1958	66.0419	54.4615	60.0419	57.6503	63.2307	83.7901	67.7622	79.9719
4.2458	65.6825	54.0066	58.5920	58.1675	61.9887	83.5998	66.7440	80.6702
4.2957	64.9080	53.8251	57.4335	58.7222	61.3426	83.3795	65.7672	80.7592
4.3457	63.8383	53.8432	56.8418	59.2753	61.2744	83.1767	65.0551	80.3955
4.3956	62.5494	53.9340	56.9670	59.6922	61.9780	82.8131	64.5714	79.6043
4.4456	61.2159	53.9251	57.7483	60.1045	63.3943	82.2881	64.4167	78.4648
4.4955	59.9700	53.8561	59.1608	60.3746	65.2747	81.6832	64.5104	77.0529
4.5455	58.9097	53.6369	61.3188	60.6824	67.4098	81.0917	64.6825	75.6371
4.5954	57.9480	53.0309	64.2896	61.0729	69.6203	80.6033	64.8411	74.4455
4.6454	57.2313	51.9356	67.5906	61.4586	71.6785	79.9009	64.8033	73.5367
4.6953	57.0009	50.6153	70.9460	61.8841	73.5284	78.9749	64.5604	72.8711
4.7453	57.3707	49.2562	74.1690	62.3532	74.8808	77.8229	64.0616	72.4607
4.7952	58.2617	48.0959	77.0589	62.8171	75.8121	76.4355	63.5844	72.4075
4.8452	59.5475	47.2407	79.2675	63.2783	76.3604	74.9068	63.1330	72.8234

Table H1: Velocity Spectra

Freq. (Hz)	75-12-v	69-12-v	60-12-v	51-12-v	45-12-v	36-12-v	27-12-v	18-12-v
4.8951	60.9929	46.6748	80.6712	63.7342	76.5104	73.0838	62.5594	73.5244
4.9451	62.3083	46.4345	81.0996	64.0885	76.4512	71.0116	61.9621	74.2260
4.9950	63.1868	46.5684	80.4695	64.2357	76.1738	68.7812	61.3886	74.7252
5.0450	63.4661	47.1405	78.8534	64.2733	75.8264	66.5436	60.7418	74.9183
5.0949	62.8711	48.0347	76.4744	64.1448	75.6083	64.4505	59.9670	74.7931
5.1449	61.3787	49.0463	73.5206	64.1569	75.5271	62.6649	59.0635	74.4467
5.1948	59.2207	50.0571	70.0259	64.3116	76.0519	61.1947	58.1818	74.0778
5.2448	56.5389	50.8064	66.2943	64.4586	77.0986	60.1579	57.2732	73.7419
5.2947	53.7412	51.1044	62.6363	64.5424	78.4145	59.2477	56.3356	73.4904
5.3447	51.1648	50.9190	59.3796	64.6709	79.6360	58.3107	55.5314	73.3293
5.3946	49.0153	50.3478	56.3736	64.7891	80.3256	57.4525	54.9170	73.3666
5.4446	47.4715	49.4751	53.8362	65.0085	80.4712	56.6783	54.3208	73.5021
5.4945	46.6153	48.3626	51.7692	65.2747	79.8900	55.9340	53.6153	73.5714
5.5445	46.3742	47.0340	50.2387	65.7578	78.7873	55.0846	52.7726	73.5201
5.5944	46.7916	45.6055	49.2867	66.4055	77.2587	54.1146	51.7594	72.7831
5.6444	47.7911	44.2973	48.4741	66.8861	75.3527	53.0743	50.5738	71.2888
5.6943	49.0564	43.2596	47.6499	67.1927	73.2287	52.0630	49.3240	69.2427
5.7443	50.1994	42.4274	46.8850	67.1509	71.0570	51.0841	48.1200	66.8637
5.7942	50.9252	41.6197	46.2377	66.5174	69.1827	50.0213	46.9968	64.6053
5.8442	51.1835	40.7808	45.6432	65.3382	67.5590	48.9101	45.9880	62.6498
5.8941	50.9014	39.9679	45.1370	63.5384	66.2497	47.9014	45.0368	61.2986
5.9441	49.9899	39.3321	44.8185	61.1648	65.2662	47.2556	44.1766	60.6893
5.9940	48.6653	38.8831	44.7452	58.3816	64.4355	47.1188	43.4325	60.9590
6.0440	47.1190	38.7481	44.9432	55.3207	63.7038	47.6569	42.7613	61.9510
6.0939	45.4788	38.8791	45.3630	52.2735	63.3766	48.8975	42.1454	63.3156
6.1439	43.8920	39.1551	45.6553	49.4215	63.2822	50.7548	41.6618	64.8796
6.1938	42.4647	39.6527	45.6421	46.8065	63.3006	53.0251	41.1826	66.3975
6.2438	41.2465	40.4099	45.3675	44.4059	63.1248	55.3763	40.6721	67.6828
6.2937	40.2734	41.4881	44.9622	42.3314	62.3202	57.5181	40.2356	68.5384
6.3437	39.5720	42.8390	44.5074	40.7519	60.9566	59.2692	39.9399	68.8291
6.3936	39.0649	44.3460	43.9816	39.7106	59.2047	60.5538	39.6531	68.3476
6.4436	38.7325	45.7818	43.4170	39.0547	57.1676	61.2206	39.2995	67.0779
6.4935	38.4935	46.9675	42.8831	38.8246	55.0064	61.1428	39.1168	64.9350
6.5435	38.2860	47.8003	42.3495	39.0320	52.9500	60.3376	39.3264	62.1240
6.5934	38.1494	48.2571	41.7626	39.5142	51.0131	58.9318	40.0417	59.0571
6.6434	38.0468	48.4171	41.1226	40.0531	49.3073	57.1133	41.2223	55.9906
6.6933	37.8105	48.1583	40.5480	40.5748	47.8705	55.1662	42.8304	53.1113
6.7433	37.4658	47.4661	40.0080	41.0195	46.7648	53.3867	44.8295	50.5006
6.7932	37.1113	46.4451	39.5432	41.4521	45.8609	51.8797	47.1176	48.2453
6.8432	36.8027	45.2130	39.0952	41.9009	45.0214	50.7492	49.5516	46.3901
6.8931	36.4783	43.8953	38.6703	42.3719	44.1572	50.0163	51.9809	44.9223
6.9431	36.1458	42.7001	38.1801	42.8945	43.2763	49.5737	54.2256	43.8665
6.9930	35.8112	41.7063	37.5384	43.4335	42.4405	49.3007	56.2167	43.1818
7.0430	35.3206	41.0043	36.7292	43.9131	41.6312	49.0475	57.9287	42.7721
7.0929	34.7056	40.5998	35.7695	44.3448	40.8480	48.5509	59.2541	42.4865
7.1429	34.0359	40.3860	34.6859	44.6931	39.9860	47.7574	60.1432	42.3574
7.1928	33.2955	40.4092	33.6407	44.8543	38.8052	46.7748	60.6065	42.3800
7.2428	32.5926	40.5742	32.8389	44.8402	37.2932	45.6803	60.6729	42.5008
7.2927	31.9639	40.6860	32.4015	44.7772	35.6540	44.4928	60.3836	42.7206

Table H1: Velocity Spectra

Freq. (Hz)	75-12-v	69-12-v	60-12-v	51-12-v	45-12-v	36-12-v	27-12-v	18-12-v
7.3427	31.4855	40.6198	32.2785	44.7684	34.0848	43.2999	59.7549	42.9401
7.3926	31.1672	40.3192	32.3500	44.8879	32.7566	42.2635	58.7120	43.1654
7.4426	30.9538	39.7956	32.5614	45.1617	31.7129	41.5148	57.3303	43.4722
7.4925	30.8616	39.1858	32.9295	45.4795	31.0639	41.0814	55.8566	43.8386
7.5425	30.9016	38.5573	33.3831	45.7679	30.9167	40.8653	54.3814	44.2669
7.5924	31.1061	38.0151	33.9304	46.0555	31.1668	40.9382	52.9114	44.8787
7.6424	31.3950	37.6006	34.6201	46.3512	31.7236	41.3377	51.5403	45.6404
7.6923	31.6154	37.2615	35.4692	46.6461	32.5461	42.0846	50.2846	46.4538
7.7423	31.7202	36.9850	36.4430	46.9029	33.5474	43.0472	49.2643	47.2280
7.7922	31.8000	36.7636	37.5428	47.0103	34.5584	44.0883	48.4207	47.8753
7.8422	31.8236	36.5603	38.7640	46.8493	35.4703	45.2573	47.5394	48.4648
7.8921	31.8367	36.3431	40.0051	46.3898	36.2247	46.5713	46.6897	49.0099
7.9421	31.8478	36.1763	41.2751	45.7068	36.7878	47.9782	45.8895	49.4316
7.9920	31.8801	35.9800	42.5654	44.8431	37.0909	49.4865	45.1548	49.7342
8.0420	31.9589	35.6421	43.9174	43.8048	37.1299	51.0747	44.4883	49.9649
8.0919	32.1410	35.1431	45.1852	42.6119	37.0124	52.6135	43.8095	50.0970
8.1419	32.5350	34.5217	46.2297	41.3690	36.7607	53.9564	43.0951	50.0483
8.1918	32.9966	33.7994	46.9308	40.0579	36.5027	54.9752	42.4417	49.7242
8.2418	33.4782	33.0084	47.2585	38.7942	36.4617	55.5580	41.8683	49.0634
8.2917	33.8882	32.1718	47.1798	37.7687	36.8151	55.5378	41.2844	48.0504
8.3417	34.1593	31.3731	46.6384	36.9454	37.5627	54.9801	40.6324	46.6968
8.3916	34.2209	30.6461	45.6083	36.2601	38.6098	54.0587	39.8265	45.0797
8.4416	33.9606	30.0521	44.1158	35.7839	39.7431	52.8360	38.8398	43.3814
8.4915	33.3546	29.7033	42.2707	35.4011	40.8017	51.3651	37.6683	41.6423
8.5415	32.5089	29.5707	40.2134	35.1568	41.6569	49.6688	36.2758	40.0596
8.5914	31.5562	29.5286	38.1716	35.1045	42.1408	47.8799	34.7866	38.7816
8.6414	30.5906	29.5449	36.3889	35.2569	42.1873	46.0932	33.2953	37.6592
8.6913	29.7242	29.5504	34.9651	35.5561	41.7704	44.2909	31.8102	36.5991
8.7413	29.0648	29.4844	34.0037	35.8656	40.9617	42.5526	30.4634	35.6208
8.7912	28.7296	29.3538	33.4945	36.1934	39.8066	40.9230	29.3538	34.8483
8.8412	28.7516	29.1760	33.4551	36.6291	38.4150	39.3964	28.5571	34.4188
8.8911	29.1006	29.0294	33.8040	37.1648	36.8892	37.9205	28.1848	34.2841
8.9411	29.8007	28.9513	34.6468	37.6599	35.2905	36.3992	28.2449	34.3428
8.9910	30.8032	28.9061	35.9101	37.9690	33.6893	34.9750	28.6993	34.5075
9.0410	32.0503	28.8770	37.3393	37.9722	32.2854	33.7681	29.5189	34.7807
9.0909	33.4636	28.8545	38.7454	37.5181	31.2182	32.8636	30.6272	35.0818
9.1409	34.9182	28.8761	39.9732	36.6733	30.5215	32.3131	31.9017	35.3022
9.1908	36.2945	28.9234	40.9266	35.5592	30.1458	32.2597	33.2156	35.4030
9.2408	37.5084	28.9514	41.6390	34.2002	30.1158	32.7864	34.5144	35.3923
9.2907	38.4914	28.9591	42.0404	32.7776	30.2970	33.7996	35.6949	35.3418
9.3407	39.1936	28.9001	42.1546	31.3661	30.6749	35.2051	36.6903	35.2798
9.3906	39.6096	28.7916	42.0511	30.0217	31.2707	36.9238	37.4967	35.2241
9.4406	39.6033	28.7089	41.7369	28.8977	31.9659	38.7537	38.1023	35.1851
9.4905	39.1958	28.6613	41.2932	28.0729	32.6948	40.3916	38.5314	35.1813
9.5405	38.4768	28.6024	40.8715	27.6579	33.3822	41.7588	38.9539	35.2044
9.5904	37.5176	28.4739	40.5674	27.6587	33.9404	42.8020	39.5412	35.1776
9.6404	36.2768	28.3139	40.4897	27.9764	34.3102	43.5071	40.2969	35.0621
9.6903	34.8463	28.1600	40.5636	28.5186	34.4393	43.7808	41.1644	34.9529
9.7403	33.3703	27.9741	40.8216	29.1917	34.3540	43.6268	42.1268	34.9190

Table H1: Velocity Spectra

Freq. (Hz)	75-12-v	69-12-v	60-12-v	51-12-v	45-12-v	36-12-v	27-12-v	18-12-v
9.7902	31.9748	27.8237	41.1972	29.8601	34.0895	43.0769	43.1356	34.9902
9.8402	30.7605	27.6706	41.5847	30.4849	33.6240	42.1751	44.0841	35.2082
9.8901	29.7000	27.4154	41.9142	30.8670	32.9538	41.1033	44.9307	35.5747
9.9401	28.9257	27.1166	42.1063	31.0728	32.1463	40.1083	45.6151	36.0329
9.9900	28.5015	26.8232	42.0879	31.1688	31.2587	39.3206	46.0639	36.5734
10.0400	28.5136	26.5257	41.7162	31.2344	30.3509	38.8146	46.3145	37.1480
10.0899	28.9580	26.2337	41.0154	31.3493	29.5029	38.5636	46.2117	37.6757
10.1399	29.7707	26.0291	39.9715	31.5959	28.7263	38.4302	45.7918	38.1159
10.1898	30.8445	26.0044	38.6397	32.0062	28.0423	38.3238	45.2427	38.4155
10.2398	32.0403	26.1422	37.1602	32.4806	27.4836	38.1535	44.6455	38.5631
10.2897	33.1328	26.4239	35.6847	32.9476	27.0722	37.8661	44.0193	38.5967
10.3397	33.9763	26.8522	34.3795	33.2525	26.8729	37.4711	43.4164	38.5878
10.3896	34.4727	27.3766	33.4130	33.3091	26.9818	37.0181	42.9194	38.5558
10.4396	34.5446	27.9677	32.8012	33.1979	27.2160	36.5699	42.6562	38.6056
10.4895	34.2272	28.5524	32.6119	32.9056	27.5140	36.2412	42.8706	38.8112
10.5395	33.5683	29.0469	32.8832	32.3563	27.9508	36.1926	43.5281	39.0383
10.5894	32.6154	29.4597	33.5366	31.5035	28.5278	36.5440	44.4437	39.2655
10.6394	31.3969	29.7478	34.4929	30.4712	29.3435	37.2911	45.3451	39.6211
10.6893	29.9835	29.9407	35.6167	29.4704	30.4752	38.2998	46.0174	40.1276
10.7393	28.4806	30.0486	36.8788	28.5773	31.8635	39.5099	46.3186	40.7986
10.7892	26.9298	30.1127	38.3017	27.9009	33.5220	41.0205	46.2317	41.5276
10.8392	25.4396	30.1330	39.8883	27.6074	35.5743	42.7715	45.8932	42.2946
10.8891	24.2174	30.1301	41.6835	27.7236	38.0465	44.7651	45.6580	43.0882
10.9391	23.8582	30.1700	43.8549	28.2995	41.0435	47.0928	45.6270	43.9533
10.9890	24.9450	30.3626	46.9120	29.6813	44.8791	50.1868	46.2637	45.1318
11.0390	28.1826	30.9202	51.3755	32.9735	49.6755	55.4379	48.3729	47.2690
11.0889	34.0207	31.9582	57.4516	39.4987	55.4667	64.2713	52.0069	51.0089
11.1389	42.2610	33.4613	65.0735	49.0669	61.8877	76.7359	57.2317	56.4965
11.1888	52.2741	35.2559	73.9020	60.9678	68.4195	92.1286	64.0223	63.2950
11.2388	63.2183	37.1780	83.3245	74.2660	74.5132	109.3872	71.7935	70.8606
11.2887	74.1442	39.2057	92.4996	87.9954	79.6305	127.1108	79.8337	78.6145
11.3387	84.0991	41.2615	100.5516	101.0845	83.3508	144.1149	87.6595	85.9020
11.3886	92.2818	43.1970	106.7453	112.4624	85.3576	159.0987	94.7304	92.0996
11.4386	98.0288	44.8736	110.4282	121.2492	85.4349	170.8927	100.4652	96.5875
11.4885	100.8461	46.1263	111.1972	126.6033	83.5788	178.4164	104.3156	98.9734
11.5385	100.4657	46.8694	108.9465	127.9620	79.9618	180.8083	105.8196	99.0696
11.5884	96.9717	47.0373	103.8437	125.1547	74.7915	177.7661	104.8518	96.8443
11.6384	90.7097	46.5536	96.2612	118.7117	68.4571	169.4551	101.6149	92.5020
11.6883	82.2739	45.3857	86.7506	108.9466	61.4805	156.5063	96.4051	86.2830
11.7383	72.4370	43.5843	76.0759	96.7940	54.3835	139.9205	89.7276	78.5879
11.7882	62.1002	41.2587	65.0355	83.2129	47.7658	121.3006	82.2345	70.0219
11.8382	52.2657	38.6044	54.4084	69.4074	42.0848	102.1755	74.6754	61.2982
11.8881	43.8671	35.8664	44.8776	56.5160	37.6258	84.1202	67.6552	53.1398
11.9381	37.5573	33.2476	37.1633	45.6513	34.5011	68.6083	61.5767	46.1288
11.9880	33.6144	30.9530	31.7322	37.7382	32.8351	56.7272	56.7152	40.8911
12.0380	31.7322	29.1199	28.6023	33.2008	32.2618	49.0669	53.3043	37.6188
12.0879	31.3077	27.7055	27.1011	31.4527	32.2747	44.7736	50.7571	36.0703
12.1379	31.4129	26.6306	26.7155	30.8181	32.4932	42.2035	48.7944	35.3456
12.1878	31.5298	25.9113	26.8375	30.4086	32.7242	40.1344	47.3009	34.8205

Table H1: Velocity Spectra

Freq. (Hz)	75-12-v	69-12-v	60-12-v	51-12-v	45-12-v	36-12-v	27-12-v	18-12-v
12.2378	31.5001	25.5648	27.1434	30.1662	32.8585	38.4267	45.9285	34.3026
12.2877	31.2845	25.5216	27.4261	30.0189	32.8573	37.0720	44.5060	33.8772
12.3377	31.0046	25.6377	27.6241	29.8326	32.7689	36.1618	43.1573	33.5215
12.3876	30.7584	25.7043	27.7606	29.6064	32.5794	35.6887	41.8577	33.2112
12.4376	30.5219	25.7334	27.8602	29.3900	32.3004	35.4347	40.5093	32.8726
12.4875	30.2822	25.7118	27.9470	29.2083	31.9056	35.4021	39.1733	32.5175

Table H1: Velocity Spectra

Freq. (Hz)	75-9-v	69-9-v	60-9-v	51-9-v	45-9-v	36-9-v	27-9-v	18-9-v
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0500	2.3450	2.9645	2.5255	2.3950	1.7105	3.2235	2.1770	1.7975
0.0999	4.7393	5.9550	5.0789	4.9490	3.4595	6.4306	4.4066	3.7472
0.1499	7.2552	9.0060	7.7199	7.7963	5.3155	9.6206	6.7335	5.9705
0.1998	9.9640	12.0739	10.4835	11.0230	7.3566	12.7732	9.1648	8.5395
0.2498	12.9371	15.1154	13.4717	14.6708	9.6523	15.8998	11.6806	11.4933
0.2997	16.1568	18.0929	16.7682	18.7522	12.2547	18.9980	14.2567	14.7602
0.3497	19.6601	20.9995	20.5239	23.2760	15.2224	22.0731	16.8450	18.3418
0.3996	23.3966	23.7482	24.8391	28.1119	18.5215	25.1548	19.3606	22.1898
0.4496	27.2952	26.3376	29.7051	33.2299	22.0844	28.2664	21.7741	26.3870
0.4995	31.3286	28.8411	35.0599	38.6863	25.8242	31.5884	24.1059	31.0140
0.5495	35.5142	31.3270	40.8773	44.4820	29.7444	35.3383	26.5354	36.0197
0.5994	39.7882	33.7582	47.0529	50.4875	33.8721	39.7402	29.3406	41.3106
0.6494	44.2891	36.1651	53.3742	56.6147	38.2626	45.0489	32.6453	46.9581
0.6993	49.1958	38.6014	59.6573	62.8811	42.8951	51.2237	36.5664	52.9790
0.7493	54.4966	41.1291	65.6986	69.2878	47.6480	57.8460	41.1516	59.3371
0.7992	60.1878	43.8921	71.1208	75.6283	52.4595	64.5114	46.3296	66.0139
0.8492	66.3565	46.9947	75.5788	81.8884	57.2870	70.8657	51.9625	72.8699
0.8991	73.1238	50.5564	78.7881	87.9949	62.1997	76.5584	57.9830	79.4984
0.9491	80.4362	54.4404	80.7494	93.6952	67.3481	81.3853	64.0453	85.4854
0.9990	88.1418	58.4315	81.6982	98.7112	72.7572	85.1847	69.9300	90.6692
1.0490	95.9835	62.5204	81.8325	102.8230	78.4128	87.8642	75.4651	94.7667
1.0989	103.5493	66.7582	81.4615	105.9010	84.1977	89.3625	80.3516	97.5384
1.1489	110.5472	71.1858	80.6872	107.9736	89.9014	89.8555	84.4212	98.8399
1.1988	116.6313	75.7042	79.8041	109.3665	95.1607	89.9100	87.6802	98.7811
1.2488	121.7455	80.2978	79.4112	110.1816	99.5169	89.9636	90.1384	97.8185
1.2987	125.6492	84.7272	79.7921	110.5064	102.7402	90.4674	91.6752	96.4155
1.3487	128.1670	88.6231	80.9355	110.3911	104.7131	92.3590	92.2376	95.1238
1.3986	129.1467	91.6782	82.6712	109.7342	105.3286	96.3356	92.0139	94.1538
1.4486	128.6212	94.0431	84.5838	108.9057	104.8352	102.5029	91.4211	93.7969
1.4985	127.0129	95.8441	86.7781	108.1168	103.6213	110.7092	90.9440	94.4954
1.5485	124.6388	97.0910	89.3175	107.2956	101.8913	120.0552	90.8970	96.0844
1.5984	121.9100	97.8381	92.1797	106.2137	99.8520	129.4864	91.2367	98.6213
1.6484	119.4266	98.1293	94.9808	105.2009	97.5688	138.2183	91.4862	102.1513
1.6983	117.5224	98.0938	97.4994	104.5643	95.0539	145.3065	91.5554	106.3306
1.7483	115.9473	98.1321	99.6356	104.2861	92.5550	150.1615	91.5410	110.7198
1.7982	115.0488	98.4874	101.0409	104.1158	90.4495	152.5953	91.2227	115.1028
1.8482	114.9580	99.2114	101.7434	104.0721	89.2865	152.8646	90.5988	118.8762
1.8981	115.5943	100.2766	101.9090	103.9589	89.2487	151.1267	89.7801	121.5164
1.9481	116.1262	101.5545	101.8077	103.4441	90.1775	147.8803	88.8334	122.9056
1.9980	115.8840	102.8570	101.6383	102.4375	91.6083	143.7361	87.8720	123.2566
2.0480	114.9952	104.3456	101.3760	100.9459	92.9792	139.1616	86.9990	122.6957
2.0979	113.9369	105.8810	101.2447	99.1048	94.2167	134.4334	86.1398	121.4055
2.1479	113.1084	107.0299	101.3164	97.1066	95.0231	130.2701	85.4220	119.6810
2.1978	112.5713	107.4724	101.6043	95.2746	95.3186	127.6482	84.8571	117.9999
2.2478	112.3001	107.1301	102.0501	93.4860	95.1494	126.7534	84.4274	117.0205
2.2977	111.9899	105.9929	102.2706	91.5633	94.7112	127.3845	84.0269	116.7691
2.3477	111.5158	104.2614	102.0310	89.6117	94.3071	129.2878	83.9303	116.8920
2.3976	110.8650	102.3775	101.4664	87.8481	93.8900	131.8200	84.5154	117.3146

Table H1: Velocity Spectra

Freq. (Hz)	75-9-v	69-9-v	60-9-v	51-9-v	45-9-v	36-9-v	27-9-v	18-9-v
2.4476	109.9951	100.8166	100.7677	86.7674	93.6207	134.1285	85.8129	117.9988
2.4975	109.0658	99.6003	100.2746	86.4135	93.6063	136.2886	87.6373	118.9809
2.5475	108.1159	98.9194	100.3206	86.6914	93.7990	138.3293	89.5192	119.8089
2.5974	107.3246	98.9609	101.1428	87.2467	94.0519	140.1557	90.9350	119.9479
2.6474	106.9550	99.4099	102.7985	87.9731	94.4328	141.8477	91.4412	119.5301
2.6973	106.8131	100.3126	105.1947	88.7951	94.9180	143.5233	91.3306	118.9240
2.7473	106.8150	101.5402	108.2711	89.5345	95.4961	145.0025	90.7708	118.3537
2.7972	107.1048	102.8251	111.6363	90.0978	95.9999	146.0418	89.6223	118.0139
2.8472	107.7950	104.0936	115.1408	90.6548	96.3492	146.6308	88.0639	117.7602
2.8971	108.9310	105.2806	118.4334	91.2876	96.1258	146.5063	86.5074	117.6512
2.9471	110.5457	106.0956	121.2142	92.0085	94.9850	145.4689	85.1417	117.8545
2.9970	112.4774	106.4235	123.0868	92.8171	93.0569	143.6162	83.9160	118.3515
3.0470	114.5367	106.3403	123.5863	94.1218	90.7092	140.9847	82.9089	119.1072
3.0969	116.0099	105.8520	122.3585	96.0039	88.1997	137.2236	82.1608	119.7881
3.1469	116.3724	104.8862	119.0158	98.3721	85.8789	132.5474	81.4732	120.2116
3.1968	115.2446	103.4484	113.6462	100.8590	83.9799	127.3605	80.6553	120.3915
3.2468	112.9237	101.9820	106.5924	102.8262	82.4687	121.8849	79.6765	120.1641
3.2967	109.5164	100.8461	98.3406	103.8131	81.4615	116.2416	78.7911	119.4394
3.3467	105.4211	100.2002	89.6581	103.7812	81.0236	110.8427	78.2124	118.1720
3.3966	101.2187	100.2676	81.4505	102.8490	81.0429	106.2117	77.8840	116.5373
3.4466	97.4354	101.1577	74.4810	101.2956	81.6844	102.7431	77.8587	114.9096
3.4965	94.3705	102.5873	69.3706	99.0558	82.8321	100.4195	78.0419	113.6712
3.5465	92.1735	104.5154	66.4259	96.1811	84.3003	98.9119	78.5195	112.9560
3.5964	91.0968	106.6333	65.2747	92.8231	85.8101	97.8221	79.2287	112.8910
3.6464	91.2329	108.4439	65.4164	89.4827	87.1854	96.7390	80.4031	113.4760
3.6963	92.3336	109.6692	66.3116	86.6413	88.4155	95.7711	81.9839	114.4744
3.7463	94.1820	110.3660	67.6207	84.6664	89.2743	94.9312	83.5050	115.7232
3.7962	96.7272	110.1657	69.0908	83.7442	89.6283	93.9939	84.5793	117.1507
3.8462	99.8089	109.1936	70.8085	83.8087	89.5011	93.0780	85.1933	118.6553
3.8961	103.0908	107.3376	72.6623	84.7012	88.9480	92.2596	85.2856	120.0388
3.9461	106.5052	104.7690	74.4234	86.1828	87.8402	91.6679	84.6438	121.5399
3.9960	109.7701	101.7382	76.1238	88.1917	86.2736	91.5883	83.2367	122.7571
4.0460	112.5597	98.6010	77.6427	90.5090	84.4400	91.7228	81.2032	123.6053
4.0959	114.6033	95.8031	79.1328	92.2806	82.2047	92.0758	78.5594	123.8600
4.1459	115.9608	93.3657	80.5134	93.0340	79.7257	93.0755	75.5383	123.5064
4.1958	116.6852	91.3426	81.9859	92.8111	76.9929	95.1188	72.2097	122.4754
4.2458	116.8869	89.8411	83.6423	91.7517	74.1741	98.2903	69.1216	120.7506
4.2957	116.4564	88.7921	85.4415	90.3815	71.6093	101.9799	66.6693	118.3036
4.3457	115.3783	87.9135	87.3051	88.8696	69.5747	105.7743	64.9682	115.1611
4.3956	113.9340	87.2087	89.1867	87.4285	68.2197	109.2746	64.2197	111.6482
4.4456	112.1180	86.6892	91.4015	86.2446	67.6176	112.2514	64.2389	108.2059
4.4955	110.0049	85.9989	93.9110	85.2796	67.5224	114.5004	64.9150	105.3296
4.5455	107.7738	85.2736	96.3646	84.4554	68.0461	116.0012	66.0916	103.1829
4.5954	105.4644	84.5094	98.3875	83.6822	69.0229	116.6313	67.7822	101.7881
4.6454	103.1743	83.6637	100.0619	82.9668	70.1455	116.4137	70.0062	100.9910
4.6953	101.0429	82.7781	101.2307	82.1208	71.1338	115.2696	72.6832	100.8550
4.7453	99.1293	82.0462	101.8816	81.0023	72.0337	113.3178	75.4977	101.4545
4.7952	97.4864	81.6143	101.8500	79.7442	72.8391	110.4814	78.4015	102.8570
4.8452	95.9834	81.3994	101.0709	78.2984	73.5501	106.9820	81.2540	104.8017

Table H1: Velocity Spectra

Freq. (Hz)	75-9-v	69-9-v	60-9-v	51-9-v	45-9-v	36-9-v	27-9-v	18-9-v
4.8951	94.5733	81.3566	99.3705	76.9020	74.1118	103.0908	83.8531	106.8600
4.9451	93.1162	81.1985	96.6767	75.6600	74.4732	98.9515	85.9953	108.5944
4.9950	91.1088	80.7192	93.0069	74.5254	74.5254	94.9050	87.5124	109.6403
5.0450	88.4389	79.9128	88.4893	73.3543	74.4138	91.0118	88.2371	109.7288
5.0949	85.2886	78.8691	83.7092	72.1438	73.9270	87.6832	88.1418	108.7252
5.1449	82.0612	77.5851	78.9742	71.1540	73.0061	84.9423	87.0003	106.4994
5.1948	78.9610	75.9480	74.4934	70.4415	71.7402	82.5973	85.0389	103.1687
5.2448	76.0496	74.2664	70.5426	69.9656	70.2279	80.4028	82.2385	99.0218
5.2947	73.5963	72.8021	66.9780	69.7312	68.7252	78.0439	78.7851	94.4574
5.3447	71.6190	71.7259	63.9226	69.4811	67.1294	75.5741	74.9327	90.0582
5.3946	70.2916	71.3166	61.8221	69.1588	65.2747	73.2047	71.2627	86.2057
5.4446	69.7998	71.4332	61.0340	68.8742	63.1574	71.1065	68.0031	83.0302
5.4945	70.0549	71.9780	61.3186	68.4615	60.8791	69.1758	65.1648	80.4395
5.5445	70.6924	72.7993	61.9875	68.0310	58.6608	67.4211	62.9301	78.3992
5.5944	71.2727	73.8461	62.7132	67.6922	56.4475	66.0139	61.2587	76.8111
5.6444	71.5145	74.7883	63.3302	67.6764	54.4064	65.0235	60.1129	75.6914
5.6943	71.2926	75.3925	63.6053	68.0469	52.6381	64.4025	59.3346	75.0509
5.7443	70.3677	75.5375	63.4171	68.9890	51.2794	63.9341	58.7067	74.6759
5.7942	68.6033	75.2667	62.7512	70.6892	50.2763	63.7362	58.1158	74.5134
5.8442	66.1563	74.3382	61.7148	72.9356	49.5354	63.5849	57.7407	74.2213
5.8941	63.2437	72.7921	60.5324	75.4445	49.0625	63.5384	57.7150	73.7941
5.9441	59.9760	70.7942	59.2389	77.8677	48.9318	63.5424	58.1690	73.4096
5.9940	56.8111	68.5114	58.0639	80.0798	49.0369	63.6563	58.9750	72.9470
6.0440	53.9487	66.2422	57.3576	81.8962	49.3613	63.8246	59.9625	72.2862
6.0939	51.5971	64.3516	57.2766	83.4864	49.7933	63.9860	60.9999	71.1768
6.1439	50.0666	63.0979	57.6605	84.6015	50.4660	64.1423	61.9305	69.7333
6.1938	49.4017	62.3096	58.1660	85.2267	51.3776	64.2297	62.6193	68.0699
6.2438	49.3947	61.8948	58.7542	85.2279	52.4854	64.2487	63.1873	66.3716
6.2937	50.0790	61.8985	59.3559	84.7132	53.6412	64.0699	63.5664	64.6992
6.3437	51.2888	62.1556	59.9543	83.4831	54.6383	63.7542	63.6273	63.2784
6.3936	52.8431	62.4463	60.5794	81.5823	55.3814	63.1304	63.2775	62.2097
6.4436	54.5644	62.5545	61.0144	79.0630	55.9176	62.2387	62.3032	61.5944
6.4935	56.1103	62.4155	60.9999	76.2337	56.2467	60.9870	60.5519	61.5064
6.5435	57.2229	62.0520	60.3965	73.4181	56.4115	59.4542	58.1128	62.0455
6.5934	57.8966	61.3714	59.2087	70.7472	56.4197	57.9758	55.2263	63.1252
6.6434	58.1895	60.3752	57.6049	68.1613	56.2762	56.5951	52.1773	64.4941
6.6933	58.2116	59.0349	55.8422	65.8353	55.9091	55.3737	49.3966	65.9022
6.7433	58.0800	57.4462	54.0745	63.6837	55.2074	54.4589	47.2098	67.1565
6.7932	57.8577	55.7722	52.5454	61.6958	54.2845	54.0671	45.8133	68.0679
6.8432	57.6197	54.4787	51.3924	59.8027	53.2606	54.3213	45.1172	68.3430
6.8931	57.4402	53.7869	50.6022	58.1019	52.3600	55.2482	44.9913	68.0900
6.9431	57.3292	53.7257	50.1222	56.7043	51.6636	56.5793	45.1788	67.3134
6.9930	57.2377	54.2587	49.8741	55.5524	51.3006	58.0909	45.4195	66.0839
7.0430	57.0483	55.2030	49.7940	54.7241	51.2378	59.5627	45.6105	64.5702
7.0929	56.6935	56.3176	49.6858	54.1898	51.4022	61.0273	45.7634	62.8502
7.1429	56.3861	57.3218	49.4717	53.8003	51.7003	62.5361	45.9146	61.0789
7.1928	56.0031	57.9236	49.2563	53.4209	51.8817	63.7786	46.1562	59.4988
7.2428	55.4291	58.1380	49.1352	53.1042	51.7643	64.5189	46.4626	58.1380
7.2927	54.6515	58.0791	49.1163	52.7700	51.3041	64.7008	46.6368	57.0727

Table H1: Velocity Spectra

Freq. (Hz)	75-9-v	69-9-v	60-9-v	51-9-v	45-9-v	36-9-v	27-9-v	18-9-v
7.3427	53.6972	57.7136	49.0346	52.4195	50.4370	64.2853	46.5233	56.5388
7.3926	52.6945	57.1078	48.8651	52.1030	49.1904	63.2807	46.2333	56.3464
7.4426	51.8898	56.2735	48.6448	51.8005	47.7592	61.7661	45.7124	56.3033
7.4925	51.3386	55.2272	48.4765	51.5934	46.2362	59.8276	45.0674	56.1938
7.5425	51.0854	54.0269	48.3173	51.5228	44.6591	57.5417	44.4932	56.0031
7.5924	51.2715	52.6609	48.0827	51.5220	43.0489	54.9690	44.0663	55.8877
7.6424	51.9072	51.3875	47.7650	51.5862	41.3836	52.1747	43.8521	55.8736
7.6923	52.8999	50.4461	47.4076	51.6999	39.7384	49.2615	43.8923	56.1384
7.7423	54.0955	49.9301	46.9803	51.8192	38.3012	46.4306	43.9763	56.7046
7.7922	55.5038	49.8701	46.5428	51.9194	37.3013	43.8779	43.9636	57.4519
7.8422	57.0598	50.2763	46.1435	51.9546	36.7956	41.7989	43.7595	58.3224
7.8921	58.6146	50.8251	45.7821	51.9142	36.7930	40.2813	43.5013	59.4985
7.9421	60.0661	51.2265	45.5479	51.8222	37.2008	39.3928	43.3639	61.0509
7.9920	61.2906	51.4445	45.4745	51.6923	37.9780	39.3286	43.4605	62.5694
8.0420	62.1566	51.4366	45.5097	51.5975	39.0278	40.1537	43.6600	63.7972
8.0919	62.5666	51.5859	45.7921	51.5940	40.1763	41.6733	44.1089	64.5491
8.1419	62.3670	51.9290	46.4088	51.6196	41.4586	43.5103	44.7642	64.8828
8.1918	61.3156	52.4029	47.2913	51.6821	42.8349	45.3007	45.4399	64.8217
8.2418	59.5058	52.8299	48.2969	51.7832	44.1760	46.8299	45.9316	64.3932
8.2917	57.1630	53.0088	49.1698	51.9143	45.4883	47.9841	46.1599	63.6139
8.3417	54.6381	52.7696	49.8083	52.0022	46.7969	48.7155	46.2047	62.5711
8.3916	52.2629	52.1370	50.2489	52.0111	48.0000	49.0573	46.0867	61.3090
8.4416	50.1262	51.0886	50.4892	51.9158	49.0288	49.0035	45.8970	59.9100
8.4915	48.1468	49.6328	50.4225	51.7982	49.7517	48.6223	45.7013	58.5319
8.5415	46.5170	47.9264	49.8994	51.6248	50.0190	48.0886	45.5006	57.3305
8.5914	45.4829	46.1530	49.1256	51.3422	49.8989	47.6221	45.1478	56.2651
8.6414	45.1513	44.5291	48.3573	50.8978	49.5498	47.4586	44.6674	55.1062
8.6913	45.4468	43.1349	47.8282	50.1662	49.1406	47.6805	44.0649	53.8948
8.7413	46.1628	41.7922	47.6576	49.1086	48.8027	48.2957	43.3219	52.6314
8.7912	47.2527	40.4923	47.8153	47.8681	48.5890	49.3362	42.5230	51.2967
8.8412	48.4056	39.2726	48.3260	46.5843	48.4763	50.7220	41.7305	50.0942
8.8911	49.3990	38.1695	49.2122	45.3179	48.5454	52.3508	40.9702	49.2300
8.9411	50.3473	37.3112	50.2937	44.0707	48.7469	54.0311	40.2528	48.6128
8.9910	51.2577	36.8271	51.4195	42.7702	49.0819	55.5644	39.6054	48.0749
9.0410	52.1666	36.7788	52.4920	41.4801	49.4724	56.6419	39.0210	47.7003
9.0909	52.9636	37.2363	53.4545	40.1818	49.7727	56.9818	38.6727	47.5818
9.1409	53.6845	37.9622	54.2512	38.8397	49.8819	56.6096	38.4923	48.0811
9.1908	54.4187	38.7208	54.8139	37.5077	49.7406	55.6871	38.4543	49.1156
9.2408	55.2507	39.4675	55.1768	36.4272	49.2719	54.3359	38.5988	50.5841
9.2907	56.1902	40.1916	55.1496	35.7135	48.4882	52.6876	39.0767	52.2416
9.3407	57.0997	41.0244	54.6618	35.2985	47.4321	50.8788	39.8941	53.9425
9.3906	57.8649	41.9384	53.7894	35.0739	45.9670	49.1316	40.9994	55.5454
9.4406	58.3523	42.9358	52.5747	35.1190	44.2198	47.4862	42.3411	56.8135
9.4905	58.5564	43.8366	51.0589	35.4660	42.3941	46.0194	43.9125	57.5694
9.5405	58.4737	44.5351	49.3148	36.0058	40.6712	44.9739	45.5845	57.7009
9.5904	58.0411	45.0653	47.3958	36.6929	39.1480	44.4803	47.1080	57.2067
9.6404	57.1676	45.3774	45.3966	37.5686	37.8675	44.5676	48.3755	56.1071
9.6903	55.7871	45.4475	43.3738	38.6837	36.8522	45.0987	49.2461	54.6436
9.7403	53.9613	45.2827	41.3476	39.9937	36.0586	45.9450	49.6268	53.0067

Table H1: Velocity Spectra

Freq. (Hz)	75-9-v	69-9-v	60-9-v	51-9-v	45-9-v	36-9-v	27-9-v	18-9-v
9.7902	51.8685	44.8685	39.4349	41.5398	35.4797	46.9538	49.5580	51.3594
9.8402	49.8898	44.2612	37.7765	43.2575	35.1590	47.9415	49.1026	49.9489
9.8901	48.2736	43.4571	36.4648	44.8615	35.1395	48.7978	48.3230	48.8868
9.9401	47.1658	42.5237	35.3768	46.2712	35.2078	49.4421	47.2552	48.0405
9.9900	46.4235	41.6183	34.5055	47.5424	35.2647	49.7902	46.0139	47.4225
10.0400	45.8728	40.8929	33.8549	48.7643	35.2404	49.8084	44.6880	47.0173
10.0899	45.4449	40.4302	33.3370	49.8542	35.0826	49.4607	43.3059	46.6658
10.1399	45.0820	40.2453	32.9851	50.8212	34.8204	48.7729	41.9792	46.3191
10.1898	44.8861	40.4127	32.8927	51.7030	34.4313	47.7902	40.7388	45.8439
10.2398	44.8708	40.8568	32.9619	52.4380	33.8528	46.5092	39.6690	45.1370
10.2897	44.9557	41.6013	33.0094	52.8891	33.0608	44.9557	38.9054	44.2354
10.3397	44.9674	42.7547	33.0974	52.9496	32.1151	43.1786	38.4016	43.2716
10.3896	44.7792	44.2285	33.3610	52.4675	31.1376	41.3922	38.0779	42.3480
10.4396	44.5875	45.8716	33.8452	51.5403	30.2435	39.6809	37.8331	41.4557
10.4895	44.6014	47.5594	34.5419	50.2237	29.5594	38.1713	37.7202	40.6678
10.5395	44.8140	49.2722	35.4127	48.5660	29.0363	37.0780	37.7525	40.0712
10.5894	45.1532	50.9138	36.3958	46.7204	28.6443	36.3852	37.7830	39.6361
10.6394	45.6537	52.2501	37.5039	44.8557	28.4817	36.0569	37.8656	39.3019
10.6893	46.2847	53.1472	38.6632	43.1206	28.6153	35.9588	38.1287	39.1442
10.7393	47.1455	53.5569	39.7569	41.5826	29.1894	35.9552	38.6293	39.1662
10.7892	48.4327	53.3958	40.6753	40.2437	30.2313	36.0791	39.4129	39.2295
10.8392	50.2830	52.7977	41.5792	39.2054	31.7047	36.3330	40.4302	39.1945
10.8891	52.5726	51.8430	42.6199	38.4167	33.5602	36.6527	41.7161	38.9176
10.9391	55.0784	50.7027	43.9752	38.0462	35.7380	37.1382	43.3407	38.3853
10.9890	57.9780	49.8021	46.1868	38.2967	38.2088	37.7692	45.4065	37.7142
11.0390	61.6970	49.3774	49.7307	39.5638	40.8774	38.8462	48.0417	37.2014
11.0889	66.5778	49.4787	54.9011	42.0380	43.7457	40.6519	51.0644	37.2254
11.1389	72.6256	50.0694	61.6093	45.6138	46.7165	43.1410	54.1685	37.9057
11.1888	79.3622	51.0321	69.7622	49.9916	49.5664	46.1314	57.0741	39.2056
11.2388	86.2690	52.2267	78.8627	54.8678	52.2042	49.3271	59.6218	41.0104
11.2887	92.7028	53.7342	88.2438	59.8640	54.5922	52.3570	61.5573	42.9874
11.3387	98.1251	55.4916	97.1273	64.6419	56.5461	54.9360	62.6690	44.8786
11.3886	102.1330	57.2960	104.7637	68.7644	57.8883	56.9316	62.8765	46.5224
11.4386	104.4573	58.9660	110.5541	71.9030	58.5084	58.0966	62.2374	47.7676
11.4885	104.7866	60.3721	113.8855	73.6987	58.2697	58.2812	60.9235	48.5964
11.5385	102.8542	61.4425	114.5081	74.0656	57.2079	57.4271	59.1348	49.0040
11.5884	98.7679	61.9979	112.4422	73.0880	55.4157	55.5084	56.9106	48.9726
11.6384	92.8977	61.9978	107.9927	70.8546	53.0129	52.5939	54.3397	48.4972
11.6883	85.6752	61.5389	101.5246	67.5467	50.0961	48.8571	51.6389	47.5948
11.7383	77.7780	60.6987	93.5777	63.3281	46.8476	44.5938	49.0778	46.3545
11.7882	69.8215	59.4833	84.9222	58.4695	43.5220	40.2096	46.8227	44.8305
11.8382	62.2926	58.0309	76.3209	53.4495	40.2499	36.1302	44.8668	43.1029
11.8881	55.6006	56.3853	68.4160	48.7769	37.3049	32.6685	43.3440	41.3111
11.9381	50.0923	54.7243	61.6603	44.8395	34.8831	30.0960	42.2251	39.7777
11.9880	46.1058	53.1668	56.3436	41.8621	33.0030	28.5075	41.4305	38.6493
12.0380	43.6739	51.6310	52.4135	39.9662	31.6840	28.0245	40.7366	38.0882
12.0879	42.3077	49.8626	49.5483	38.9230	30.8967	28.4912	39.8780	38.0890
12.1379	41.4995	47.8962	47.4592	38.2708	30.4540	29.3980	38.7320	38.3558
12.1878	40.7560	45.7530	46.0821	37.8187	30.1892	30.5548	37.4044	38.6231

Table H1: Velocity Spectra

Freq. (Hz)	75-9-v	69-9-v	60-9-v	51-9-v	45-9-v	36-9-v	27-9-v	18-9-v
12.2378	40.0421	43.5543	45.1208	37.5211	30.1784	31.8672	35.8812	38.8795
12.2877	39.4558	41.6184	44.1743	37.1949	30.3629	33.2874	34.1844	39.0995
12.3377	38.9378	40.0852	43.1203	36.8527	30.5235	34.7553	32.3988	39.2092
12.3876	38.5626	38.9714	41.9816	36.4443	30.6221	36.2585	30.7460	39.2935
12.4376	38.2581	38.2954	40.8202	36.0069	30.6587	37.7108	29.3527	39.3028
12.4875	38.0120	38.0369	39.6353	35.6019	30.5944	39.0984	28.2842	39.2357

Table H1: Velocity Spectra

Freq. (Hz)	75-6-v	69-6-v	60-6-v	51-6-v	45-6-v	36-6-v	27-6-v	18-6-v
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0500	3.4285	4.9035	2.6790	4.3755	4.1395	5.5850	5.5750	4.1440
0.0999	6.9251	9.5345	5.5694	8.7003	8.3347	11.2587	11.4286	8.4425
0.1499	10.5949	13.6934	8.8306	12.9798	12.6306	17.1036	17.7931	12.9993
0.1998	14.5035	17.1948	12.5215	17.1948	16.9870	23.1768	24.6753	17.8082
0.2498	18.7500	19.9640	16.7191	21.3504	21.3504	29.5264	32.0493	22.8592
0.2997	23.3646	22.0579	21.4016	25.4026	25.7622	36.2337	39.6503	28.1298
0.3497	28.3537	23.7271	26.4198	29.3223	30.3854	43.3278	47.2794	33.5257
0.3996	33.6064	25.2068	31.6084	33.1109	35.3766	50.5894	54.7452	38.8971
0.4496	39.0163	26.7377	36.8312	36.7323	41.0035	57.9984	62.0898	44.1777
0.4995	44.5854	28.5764	41.9230	40.2147	47.5824	65.3846	69.2307	49.2157
0.5495	50.1364	30.9808	46.7734	43.6028	55.3347	73.0286	76.0508	53.9279
0.5994	55.5764	33.6263	51.2967	47.0949	64.3156	80.7991	82.5374	58.2617
0.6494	60.9397	36.4313	55.5757	50.9389	74.4212	88.8379	88.7730	62.2450
0.6993	66.1188	39.3846	59.6083	55.3985	85.1048	97.4125	94.7552	66.0139
0.7493	71.0037	42.4329	63.3833	60.6109	96.0603	106.7003	100.7059	69.7898
0.7992	75.5883	45.4665	66.9010	66.6133	106.7731	116.6832	106.7731	73.5903
0.8492	80.0541	48.4978	70.2119	73.4728	117.1047	126.9554	113.0285	77.3366
0.8991	84.6862	51.5904	73.4655	81.1348	126.6832	137.2027	119.4904	81.0269
0.9491	89.7279	54.8770	76.9530	89.6045	135.1518	147.2054	125.9456	84.9160
0.9990	95.2047	58.1218	80.6792	98.6812	141.7581	156.9429	132.3675	88.9709
1.0490	101.1341	61.2616	84.6543	108.1519	146.4404	165.8469	138.6778	93.4764
1.0989	107.3955	64.2857	88.7801	117.5823	149.2306	173.6262	144.7251	98.5054
1.1489	113.9824	67.2566	93.1873	126.7237	150.6208	179.6880	150.2761	103.8491
1.1988	120.5993	70.1418	97.7502	134.8650	151.2886	183.8959	155.2446	109.5463
1.2488	127.0030	72.9924	102.4890	141.9886	151.3546	186.0712	159.8464	115.4391
1.2987	132.4674	75.8571	107.0129	147.5323	151.4284	186.7531	164.4154	121.3895
1.3487	136.6233	78.7506	110.7957	151.4590	151.8636	186.1206	168.9921	127.1150
1.3986	139.2866	81.3426	113.6782	154.2656	152.8670	184.4753	173.5663	132.2656
1.4486	140.5866	83.5408	115.6562	156.1591	154.4208	182.5236	178.6124	136.6320
1.4985	140.8890	85.4145	116.6432	157.6422	156.2936	180.4194	183.1167	139.7201
1.5485	140.0618	87.1960	116.5866	159.0310	157.4825	178.6969	187.0588	141.6258
1.5984	138.2616	89.0788	115.7082	160.7990	157.7781	177.7421	191.0088	142.5613
1.6484	136.1249	91.1071	114.1847	163.3235	156.9771	176.8733	195.8299	142.7185
1.6983	133.7581	93.0668	112.2067	166.5693	155.4114	176.6232	201.4184	142.2496
1.7483	131.4372	94.7928	109.8457	170.5117	153.7105	176.2286	207.1736	141.1927
1.7982	129.7941	96.4734	107.4604	174.7311	152.4694	175.3784	212.9069	139.4504
1.8482	129.3555	98.1209	105.2920	178.9612	151.9405	173.7678	217.7180	137.1549
1.8981	130.6272	99.7831	103.8071	183.0717	151.6392	171.3225	221.3185	134.6512
1.9481	133.4254	101.3986	102.9181	186.6475	151.6985	168.4717	223.4471	132.5292
1.9980	136.7831	102.8371	101.8980	189.2705	152.6672	165.5343	224.1756	131.0288
2.0480	140.2470	103.9155	100.7411	190.3411	154.6854	162.8365	223.4368	130.1709
2.0979	143.4544	104.9160	99.3775	190.0907	157.3425	160.9719	220.2795	129.6922
2.1479	145.9713	106.0633	97.6650	188.9293	160.1904	160.3407	215.2196	128.7022
2.1978	147.3185	107.1208	95.6043	187.2306	162.6812	160.6592	207.9998	127.2306
2.2478	146.8937	108.0967	93.4635	185.5109	164.0220	162.0439	199.6721	125.4947
2.2977	144.7781	108.7961	91.3795	183.5862	164.2166	164.5613	191.5363	123.8231
2.3477	141.3081	109.0507	89.6117	181.6181	163.9399	168.2127	184.5997	122.5734
2.3976	136.9269	108.5873	88.6632	180.0118	163.3725	172.7950	179.3165	122.0858

Table H1: Velocity Spectra

Freq. (Hz)	75-6-v	69-6-v	60-6-v	51-6-v	45-6-v	36-6-v	27-6-v	18-6-v
2.4476	132.4396	107.4007	88.7255	178.5279	162.4717	178.0629	176.9370	122.4045
2.4975	128.4215	105.5194	90.0349	177.1227	161.7631	184.2156	177.4724	123.5513
2.5475	125.1587	103.2502	92.8054	175.9304	161.7408	191.0880	180.6942	125.4134
2.5974	123.0648	100.7791	97.1168	174.9349	162.5972	198.2595	186.3635	127.6362
2.6474	122.5481	98.1391	102.8250	174.1724	164.2976	205.0676	193.4720	129.9873
2.6973	123.5094	95.3765	109.4295	173.3015	166.7741	210.7400	200.4364	132.3835
2.7473	125.7439	92.6664	116.4306	171.8436	168.9315	214.5916	206.5695	134.6177
2.7972	128.8670	90.2936	123.3565	169.6502	170.1816	216.3914	211.9998	136.7831
2.8472	132.3663	88.2917	129.5476	166.9313	170.1202	216.1594	216.8712	138.8010
2.8971	135.9609	86.4784	134.6282	163.6282	168.4664	214.1536	221.2515	140.3645
2.9471	138.9558	85.0533	138.4253	159.9686	165.5091	210.8355	225.4237	141.2545
2.9970	140.4095	83.9759	140.3195	156.3835	161.8080	206.8529	229.0907	141.3985
3.0470	140.1011	83.1831	140.2534	153.2641	157.3471	202.8693	232.4556	140.5886
3.0969	138.0908	82.5943	138.3385	150.9119	152.4604	198.9449	235.1166	139.1127
3.1469	134.7503	82.1341	134.5300	149.2260	147.8728	195.3910	237.1819	137.3622
3.1968	130.5573	81.4545	129.2147	147.7561	143.9839	192.5113	239.2165	135.4804
3.2468	126.1057	80.4882	123.1836	146.4307	141.1384	190.9768	242.0165	133.8331
3.2967	121.7471	79.3516	117.1318	145.3515	139.7471	190.8789	245.6701	132.2636
3.3467	118.0381	78.0450	111.6124	144.7113	140.2937	191.8998	249.6973	130.9898
3.3966	115.4165	76.6952	107.6043	145.3065	142.1137	193.4703	253.2845	130.0558
3.4466	114.3927	75.5839	105.1213	146.9286	144.7917	195.2154	256.1513	129.2475
3.4965	114.6502	74.9999	104.2656	149.7201	148.0768	196.5383	257.3774	128.3565
3.5465	115.9706	75.2567	104.9409	154.0600	151.2582	196.7244	256.5183	127.2484
3.5964	118.0698	76.1358	106.7412	159.2846	153.6022	195.1766	253.7979	125.8740
3.6464	120.6594	77.4131	108.7721	164.4162	154.8626	192.1653	249.6690	124.5610
3.6963	123.3825	78.7682	110.2606	168.5143	154.8010	188.3265	244.6581	123.1977
3.7463	125.8757	79.7962	110.8905	171.3183	153.3735	184.2805	238.9390	121.5674
3.7962	127.7042	80.4035	110.7352	172.4234	150.5573	180.2815	232.5173	119.6183
3.8462	128.5015	80.6933	109.8090	171.6174	146.7325	175.8867	225.6566	117.2706
3.8961	128.0258	80.7662	108.5064	168.7011	142.2856	171.1946	218.4154	114.4285
3.9461	126.3147	80.6977	107.2155	163.9999	137.7584	166.3676	211.2742	111.3195
3.9960	122.9569	80.3995	105.9340	158.0018	133.9060	162.2376	204.2755	108.3316
4.0460	118.3050	80.0299	104.9128	151.3609	130.8072	159.3719	198.1326	105.5197
4.0959	112.9649	79.7881	104.1997	144.9129	128.3245	157.4054	193.0398	103.1348
4.1459	107.4203	79.7257	103.8548	139.5925	126.7402	156.6321	188.8872	101.0770
4.1958	102.1677	79.8880	103.8880	136.3215	125.9160	157.1327	186.2096	99.1048
4.2458	97.8232	80.5853	104.1495	135.2712	125.6757	158.7505	185.2443	97.3987
4.2957	94.5484	82.0479	104.2996	136.2166	125.6063	160.8310	185.8320	95.9659
4.3457	92.3896	84.0893	103.8188	139.0189	125.5473	163.5287	187.6473	94.7797
4.3956	91.2527	86.7691	102.6373	143.2086	125.3625	166.9888	190.1097	94.1977
4.4456	90.8681	89.8900	100.5595	147.6384	124.5657	171.3334	192.7612	94.2023
4.4955	90.9440	93.0569	97.4175	151.5433	123.1317	176.3135	195.3744	94.7651
4.5455	91.1373	95.7282	93.5009	154.6379	121.0467	181.7745	198.0474	95.7737
4.5954	91.1727	97.5144	89.1048	156.1976	118.2396	187.2166	200.5892	97.1008
4.6454	90.7247	98.2038	84.4998	156.0390	114.8343	191.9479	202.7253	98.5754
4.6953	89.9619	97.8031	80.2427	154.5223	111.0438	195.6532	204.7151	99.7751
4.7453	88.6422	96.1872	77.1586	152.0394	107.4810	197.4519	206.9900	100.7902
4.7952	86.8411	93.7462	75.7642	148.6512	104.3915	196.6991	209.2146	101.4185
4.8452	84.7425	90.7021	76.1665	144.7746	101.8946	193.4204	210.8147	101.4585

Table H1: Velocity Spectra

Freq. (Hz)	75-6-v	69-6-v	60-6-v	51-6-v	45-6-v	36-6-v	27-6-v	18-6-v
4.8951	82.8251	87.2796	78.0279	140.8320	100.4475	188.5103	211.8110	100.8880
4.9451	81.4952	83.5722	80.8524	137.1771	99.8910	182.7214	212.5898	100.0394
4.9950	80.8691	79.9200	84.2157	133.9659	100.3496	176.7231	213.0368	99.3506
5.0450	81.0227	76.6840	87.6317	131.5232	101.8081	170.3192	213.1008	99.0838
5.0949	81.7731	74.1308	90.7911	129.7162	103.8850	163.3425	212.8140	99.4524
5.1449	82.5242	72.2344	93.3285	128.4682	106.3451	156.6108	212.4329	100.2741
5.1948	83.0649	71.1688	95.0648	127.4804	108.8311	151.0648	212.3634	101.5064
5.2448	83.3399	71.2768	95.8225	126.1374	111.1373	147.1691	212.7291	102.9554
5.2947	83.1797	72.7492	95.4105	124.5313	113.1477	144.9159	213.0058	104.5174
5.3447	82.6291	75.1999	94.0667	122.9281	114.6438	144.5207	212.8260	105.8251
5.3946	82.0519	78.3296	92.0319	121.1088	115.4444	145.7621	212.1157	106.5434
5.4446	81.7234	81.6146	89.4548	118.9645	115.4800	148.2565	210.9238	106.4964
5.4945	81.9779	84.7801	86.4834	116.6482	114.8900	151.5383	209.7251	105.2746
5.5445	83.0566	87.6031	83.3338	114.3276	113.9395	155.5232	209.0831	102.5733
5.5944	84.5873	89.7901	80.4475	112.2796	112.5593	159.8880	208.4473	98.6293
5.6444	86.5287	91.0442	78.2878	110.6302	110.8560	164.1956	208.0526	93.6970
5.6943	88.5464	91.1657	76.9300	109.3875	108.9889	168.2666	208.0697	88.2617
5.7443	90.4153	90.3004	76.5141	108.0503	107.1886	171.8695	208.8053	82.7179
5.7942	92.0119	88.4774	76.7732	106.5553	105.4544	174.8690	210.0977	77.2367
5.8442	93.0397	85.9097	77.3772	105.0203	103.5592	177.0793	211.3847	72.1174
5.8941	93.3036	82.6353	78.2147	103.5593	101.9679	178.7681	212.8949	68.0179
5.9441	92.8468	78.9376	78.9376	102.3574	100.7525	179.7496	214.7603	65.3257
5.9940	91.4085	75.3446	79.4804	101.4784	100.2796	179.8799	216.2635	64.0759
6.0440	89.0886	72.1654	79.9017	101.3579	100.6930	178.9628	217.5840	63.9455
6.0939	86.2287	69.4705	80.0129	101.5853	101.7681	177.1497	218.4054	64.4735
6.1439	82.9427	67.4600	79.6249	102.2345	103.4018	174.7325	219.2758	65.2482
6.1938	79.5903	66.2117	78.7851	102.9410	105.4804	171.4444	220.4373	65.7162
6.2438	76.6114	65.7472	77.6104	103.3973	107.9553	167.1465	221.0930	66.1218
6.2937	74.2027	65.8321	76.2796	103.5314	110.5803	161.7481	220.5942	66.3356
6.3437	72.4451	66.0379	75.0460	103.2120	112.9813	155.6744	218.6673	66.6089
6.3936	71.2886	66.1098	74.0379	102.6173	114.8291	149.0348	215.6561	67.3246
6.4436	70.4285	65.8536	73.3926	101.9378	116.1781	142.3391	211.9944	68.8176
6.4935	69.7402	65.2597	73.2467	101.3635	116.8830	135.9090	208.1816	70.9740
6.5435	69.2302	64.3422	73.8107	101.0316	116.9323	129.8885	204.4844	73.7452
6.5934	68.5714	63.1648	74.9670	101.2087	116.3076	124.2197	201.2306	76.9450
6.6434	67.9620	61.7570	76.3991	101.9098	114.7980	118.8504	198.9698	80.4516
6.6933	67.4685	60.3334	77.6423	102.8091	112.6482	113.5853	198.1217	83.6663
6.7433	67.1700	58.9836	78.2897	103.8468	110.0507	108.4997	198.3879	86.3817
6.7932	67.2187	57.6471	78.4615	105.2267	107.0608	103.8001	199.4484	88.1078
6.8432	67.4876	56.3538	78.1493	106.8224	103.9482	100.1160	200.5058	88.7563
6.8931	67.7178	55.1310	77.2717	108.2906	101.0528	98.0888	200.9339	88.1627
6.9431	67.9243	54.1978	75.8881	109.4927	98.4532	97.8283	201.0027	86.3027
6.9930	68.0419	53.6643	74.1258	110.4894	96.0838	99.5803	200.9788	83.1468
7.0430	68.0424	53.3507	72.0499	110.9273	94.1649	103.1800	201.2889	79.0225
7.0929	67.9854	53.0194	69.9147	110.6492	92.6333	108.4504	201.3674	74.4755
7.1429	67.8290	52.6289	67.8075	109.2864	91.4291	115.0007	201.0726	70.1576
7.1928	67.5979	52.2413	65.8357	107.0289	90.5574	122.2776	200.5353	66.4039
7.2428	67.5391	51.8584	64.0191	104.0066	89.9556	129.8634	199.5391	63.6280
7.2927	67.7419	51.5156	62.5349	100.7851	89.7002	137.4674	198.6531	61.9661

Table H1: Velocity Spectra

Freq. (Hz)	75-6-v	69-6-v	60-6-v	51-6-v	45-6-v	36-6-v	27-6-v	18-6-v
7.3427	68.2063	51.2300	61.4364	97.8782	89.7278	144.8715	198.8403	61.2601
7.3926	68.9730	50.8833	61.0629	95.3645	89.9679	151.3265	200.0438	61.3142
7.4426	69.7967	50.4162	61.3940	93.4046	90.5764	156.4435	201.9177	61.7140
7.4925	70.6018	49.9150	62.3451	92.1578	91.3336	159.8900	203.5712	62.2926
7.5425	71.2465	49.4788	63.6436	91.4905	91.9431	161.5604	204.7789	62.9572
7.5924	71.4673	49.0393	64.8011	91.6403	92.0958	161.5663	205.2226	63.5408
7.6424	71.3036	48.6057	65.4724	92.3202	91.6324	160.5668	204.7399	63.9669
7.6923	70.7076	48.2769	65.4692	93.5384	90.3845	158.8460	202.4613	64.0769
7.7423	69.6265	48.1494	64.7101	94.9980	88.4945	156.7816	198.5126	63.8430
7.7922	67.9869	48.1324	63.2882	96.9350	85.9480	154.9089	193.6362	63.4363
7.8422	65.7490	48.2844	61.3966	98.9686	83.2057	153.4719	188.6049	62.7847
7.8921	63.0421	48.9231	59.1118	100.6243	80.4994	152.3965	184.0438	62.0477
7.9421	60.2488	50.2179	56.5319	101.8177	77.8167	151.4558	180.1268	61.2892
7.9920	57.6863	51.9080	53.8341	102.4574	75.4924	151.0488	176.8630	60.6033
8.0420	55.3853	53.7125	51.2034	102.2942	73.6808	151.0288	174.1897	60.2105
8.0919	53.2690	55.3567	48.9074	101.6343	72.1717	151.1567	172.2766	60.0500
8.1419	51.4405	56.7165	47.0520	100.5525	70.8427	151.1137	172.4454	59.9407
8.1918	50.0273	57.7030	45.6119	99.3665	69.7204	150.8930	175.0588	59.5953
8.2418	48.9810	58.2118	44.6623	98.2423	68.8025	150.3304	179.8361	59.1761
8.2917	48.1582	58.1746	44.3191	97.4275	68.0085	149.4164	186.7291	58.8711
8.3417	47.4643	57.5494	44.4529	96.8471	67.2424	147.8983	194.2782	58.8173
8.3916	46.9090	56.2992	44.9538	96.4195	66.2936	145.5943	201.4823	59.1608
8.4416	46.3866	54.5496	45.5340	96.4031	65.1269	142.5786	208.0010	59.9269
8.4915	45.8456	52.4265	45.9305	96.6333	63.7966	138.7511	214.2405	61.0454
8.5415	45.3127	50.2155	46.1326	96.7752	62.3530	134.2724	220.1145	62.3615
8.5914	44.8385	48.1462	46.1788	96.3955	60.8958	129.3865	225.6102	63.7224
8.6414	44.4341	46.3438	46.1969	95.4011	59.6343	124.3497	230.3797	65.1562
8.6913	44.1866	44.9340	46.4029	93.7791	58.7706	119.4185	234.1436	66.5840
8.7413	44.0911	43.9950	46.9495	91.5214	58.5492	114.6859	237.4137	67.8849
8.7912	44.1230	43.5692	47.8857	88.7911	59.0065	110.3296	240.0877	69.0461
8.8412	44.3298	43.7374	49.2278	85.7066	60.0406	106.5365	241.8068	69.8543
8.8911	44.6689	44.4733	50.8482	82.2338	61.5798	103.4035	242.4603	70.2664
8.9411	45.2241	45.4297	52.4932	78.6370	63.4550	101.1238	241.5885	70.2323
8.9910	45.9710	46.1778	54.0269	75.3716	65.3376	99.8900	239.2505	69.7342
9.0410	46.8053	46.5431	55.4575	72.8614	66.9396	99.6318	235.9701	68.7839
9.0909	47.7000	46.5909	56.7181	71.2727	67.8363	100.0908	231.9998	67.3545
9.1409	48.7027	46.3444	57.6608	70.5495	67.8986	101.0984	228.2483	65.5677
9.1908	49.8325	45.8161	58.0491	70.5302	67.0836	102.7531	224.0717	63.8025
9.2408	51.0739	45.1690	57.8936	71.0618	65.4618	104.8831	219.0070	62.3292
9.2907	52.3624	44.5675	57.2679	72.1237	63.1861	107.4934	213.5003	60.9842
9.3407	53.6717	44.0414	56.2030	73.5487	60.5277	110.1269	208.0174	59.6964
9.3906	54.9632	43.6287	54.9068	75.0027	57.7710	112.6872	203.3065	58.4940
9.4406	56.0866	43.3512	53.5565	76.4500	55.1425	114.9865	199.7631	57.3516
9.4905	57.0474	43.1913	52.2547	77.7652	52.8051	116.7332	197.4973	56.3736
9.5405	57.9299	43.2280	51.1562	78.8332	50.8795	118.2068	196.0573	55.7928
9.5904	58.6261	43.4541	50.3400	79.7729	49.5152	119.9759	195.5483	55.5860
9.6404	59.0089	43.7674	49.8119	80.7576	49.0118	122.0475	196.1821	55.7408
9.6903	59.1496	44.2653	49.4302	81.7668	49.5659	124.1327	197.3914	56.2522
9.7403	59.0749	44.9223	49.1496	82.5101	51.1074	125.9421	200.0658	57.1463

Table H1: Velocity Spectra

Freq. (Hz)	75-6-v	69-6-v	60-6-v	51-6-v	45-6-v	36-6-v	27-6-v	18-6-v
9.7902	58.5552	45.6223	48.9412	83.0698	53.3174	127.1747	204.2236	58.3398
9.8402	57.6242	46.2293	48.7779	83.4744	55.9711	127.9226	209.4979	59.6218
9.8901	56.3043	46.6318	48.6989	83.6604	58.9153	128.3735	215.7031	60.7054
9.9401	54.6706	46.7384	48.5872	83.7553	61.7777	128.4261	221.8630	61.3404
9.9900	52.8571	46.5934	48.5514	84.2457	64.2757	128.1717	227.1726	61.4285
10.0400	50.9630	46.1740	48.7141	85.0589	66.3343	127.8092	231.3216	61.0131
10.0899	49.0975	45.6467	48.9562	85.8650	68.0564	127.2336	234.2875	60.2569
10.1399	47.3229	45.0212	49.0873	86.6657	69.2961	126.5460	236.1583	59.3488
10.1898	45.6809	44.4377	49.0027	87.3164	70.0243	125.7421	236.0977	58.3264
10.2398	44.2257	43.9697	48.8131	87.6220	70.2962	125.0280	233.8770	57.1790
10.2897	42.8566	43.5563	48.6703	87.4830	70.1037	124.2996	230.1806	55.8834
10.3397	41.6483	42.9615	48.6069	87.0086	69.4621	123.6628	225.5089	54.6246
10.3896	40.7272	42.1922	48.6961	86.3272	68.4779	123.3246	219.9478	53.6519
10.4396	40.1403	41.4035	48.8260	85.5212	67.2519	123.5005	213.6986	53.0749
10.4895	39.8916	40.7307	48.9125	84.5034	65.8111	123.8810	206.8529	52.8356
10.5395	39.9131	40.2398	48.9876	83.1988	64.1539	124.3661	200.2505	52.9821
10.5894	40.0703	39.8267	49.1242	81.6125	62.4139	124.8490	194.6332	53.4553
10.6394	40.3233	39.3764	49.4094	79.8700	60.9744	125.1193	190.2325	54.3461
10.6893	40.5873	38.8770	50.0687	78.0212	59.9563	125.2786	187.5972	55.5630
10.7393	40.8953	38.2856	51.1405	76.0772	59.3132	125.6498	186.7564	57.0149
10.7892	41.2147	37.6435	52.5974	74.2513	59.1140	126.4494	187.1926	58.5638
10.8392	41.6876	37.0592	54.5103	72.6768	59.6481	127.7942	188.0601	59.9408
10.8891	42.3695	36.5112	56.8738	71.3998	61.1205	129.7981	189.0348	61.1096
10.9391	43.5376	36.0006	59.4868	70.5463	63.4140	132.1443	189.4652	62.2216
10.9890	45.3846	35.6153	62.5714	70.2966	66.3406	134.6153	189.0108	63.3626
11.0390	47.8430	35.7001	67.1171	70.5392	69.5015	136.8836	188.2150	64.6885
11.0889	50.8315	36.6932	73.2533	71.2129	72.5658	138.8330	187.2915	66.2562
11.1389	54.1796	38.5406	80.6679	72.3694	75.0316	140.1274	186.1310	67.9584
11.1888	57.7790	41.0405	88.9286	73.9132	76.5538	140.8670	183.9439	69.6950
11.2388	61.3638	43.9100	97.5415	75.7270	77.0532	140.7098	181.1695	71.3214
11.2887	64.7294	46.8481	105.8316	77.9033	76.5938	139.7541	178.8130	72.6541
11.3387	67.6240	49.6635	112.9561	80.5161	75.2436	137.8786	177.2239	73.5428
11.3886	69.7552	52.2053	118.2137	83.4443	73.3198	134.8410	176.2955	73.9803
11.4386	70.8392	54.3791	121.2492	86.4758	71.0566	130.9720	175.9257	73.8934
11.4885	70.7002	56.0983	121.7781	89.5184	68.7931	126.7182	176.4634	73.2277
11.5385	69.3002	57.1502	119.7696	92.3657	66.8425	122.4235	177.9237	71.9772
11.5884	66.7028	57.3858	115.4436	94.7815	65.5672	118.4334	180.0837	70.0982
11.6384	63.0685	56.8419	109.1333	96.6569	65.0121	115.0456	182.4901	67.6657
11.6883	58.8272	55.4727	101.3843	97.6324	65.0454	112.5700	184.7920	64.7064
11.7383	54.5127	53.3858	92.6856	97.4748	65.4528	110.6804	186.8737	61.4500
11.7882	50.4889	50.7954	83.6962	96.3096	66.0846	109.3238	189.0827	58.0451
11.8382	47.0450	47.9092	75.2081	94.3860	67.0042	108.4142	192.2524	54.6333
11.8881	44.4734	44.9370	67.9167	92.1566	68.0356	107.8488	196.7481	51.5944
11.9381	42.8339	42.1892	62.2930	89.8103	68.7276	107.3474	202.4702	49.1492
11.9880	42.1138	39.8961	58.6813	87.5124	68.9670	106.6812	209.4304	47.3286
12.0380	42.1691	38.2327	57.3129	85.6022	68.7731	106.2955	217.5267	46.2139
12.0879	42.8274	37.3033	57.2604	83.9867	68.2362	106.2647	225.8020	45.6923
12.1379	44.0242	36.6322	57.4851	82.2343	67.5960	106.3037	233.1691	45.5657
12.1878	45.5580	36.0515	57.6483	80.4395	66.9963	106.3751	238.7590	45.6677

Table H1: Velocity Spectra

Freq. (Hz)	75-6-v	69-6-v	60-6-v	51-6-v	45-6-v	36-6-v	27-6-v	18-6-v
12.2378	47.2257	35.5263	57.4687	78.8481	66.4513	106.2975	242.7980	45.9652
12.2877	48.8436	35.2165	56.7937	77.6214	66.0095	105.9323	246.3684	46.3861
12.3377	50.2144	35.1501	55.6800	76.6295	65.5255	105.5614	249.2215	46.8956
12.3876	51.3218	35.4285	54.2577	75.7378	65.0597	105.4680	251.3444	47.3578
12.4376	52.1882	36.0815	52.5364	74.7749	64.3646	106.3788	252.8564	47.7479
12.4875	52.8596	37.0754	50.5744	73.5764	63.3491	108.6537	254.3704	47.9645

Table H1: Velocity Spectra

Freq. (Hz)	69-3-v	60-3-v	51-3-v	45-3-v	36-3-v
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0500	11.4650	8.2450	7.3550	7.1200	10.8900
0.0999	22.8371	16.5335	14.5255	14.3456	21.8082
0.1499	34.1172	24.9284	21.4207	21.7355	33.0679
0.1998	45.1548	33.4265	27.9920	29.2907	44.9150
0.2498	55.8303	42.0663	34.3225	37.0953	57.5539
0.2997	65.8141	50.7692	40.3996	45.1348	70.9989
0.3497	75.0456	59.4140	46.4751	53.4691	85.2918
0.3996	83.6363	67.8121	52.9070	62.0579	100.2596
0.4496	91.8982	76.2971	60.0666	70.7670	115.6371
0.4995	100.2497	85.7142	68.2317	79.5704	131.1188
0.5495	108.3614	96.4373	77.4246	88.4146	146.2769
0.5994	115.9240	108.4914	86.9130	97.0429	160.4594
0.6494	122.2820	121.6976	96.1761	105.5924	173.1950
0.6993	127.3425	135.8740	104.8950	114.4754	184.1956
0.7493	131.6520	150.4594	112.9195	123.7094	192.9448
0.7992	135.6242	164.9549	120.4394	133.0668	198.9209
0.8492	140.0331	178.6717	127.6348	142.2410	202.1945
0.8991	145.1147	190.9688	134.5054	150.8690	203.1067
0.9491	150.3374	201.5888	141.2261	158.8793	202.3481
0.9990	155.7441	210.3894	147.9519	166.2336	200.6991
1.0490	161.5460	217.8773	154.8324	172.8752	199.3100
1.0989	167.4724	224.5053	161.7581	178.4614	199.6701
1.1489	173.5988	231.7331	169.0032	182.6751	202.4362
1.1988	179.4604	241.1986	176.7031	185.5742	207.5123
1.2488	185.1970	254.0059	184.5726	187.5698	214.4190
1.2987	190.2596	270.5192	191.9479	188.8310	222.5972
1.3487	194.4825	289.8356	198.7984	189.4924	231.3021
1.3986	197.6222	311.0486	204.4753	190.0697	239.5802
1.4486	199.7619	333.9023	208.5984	190.6358	246.6966
1.4985	201.3984	357.6920	211.1387	191.2086	251.2985
1.5485	201.7696	378.6083	212.1445	192.1689	253.1798
1.5984	201.8779	394.3253	212.4274	193.7261	251.9078
1.6484	202.2587	403.8580	213.1381	196.6541	247.7545
1.6983	203.6262	408.1015	215.0048	200.7391	241.4983
1.7483	206.6491	407.7036	219.0620	205.2504	233.3981
1.7982	211.1087	404.0555	225.3145	209.4903	224.4154
1.8482	216.0546	398.2871	233.7973	213.6519	215.8698
1.8981	221.3185	391.3882	243.3364	218.0917	208.6012
1.9481	226.1744	384.9446	253.0582	223.0575	203.3816
1.9980	230.3694	378.8208	262.3374	229.1706	200.1996
2.0480	233.6768	374.3744	270.7456	236.1344	198.7789
2.0979	235.3844	371.5381	278.6011	242.9368	199.1746
2.1479	236.0542	370.0832	285.0263	249.1564	200.3776
2.1978	236.0437	369.0106	288.3514	254.2855	201.7580
2.2478	235.1199	366.8410	287.2688	258.4970	202.5268
2.2977	232.9868	362.3473	281.9278	261.0187	201.5083
2.3477	229.9807	356.1461	273.2723	262.0033	198.9441
2.3976	226.8609	349.3303	263.0167	261.0986	195.7640

Table H1: Velocity Spectra

Freq. (Hz)	69-3-v	60-3-v	51-3-v	45-3-v	36-3-v
2.4476	225.0323	343.3983	252.5923	257.9770	192.8709
2.4975	224.9498	339.4103	242.5822	253.9958	190.4594
2.5475	225.7849	337.5438	233.6058	249.2219	189.3812
2.5974	227.3244	337.6620	226.2335	244.2855	189.4803
2.6474	229.8737	340.7204	221.0314	239.5368	190.2951
2.6973	232.7500	347.6820	217.8609	234.9888	191.8320
2.7473	235.5810	357.6985	215.7180	231.2128	193.7121
2.7972	237.4263	368.6710	214.8250	229.0627	195.4963
2.8472	237.6843	378.3929	215.3337	228.4593	197.0832
2.8971	236.6351	387.0526	216.8769	229.7690	198.3065
2.9471	234.7660	395.5008	218.4685	232.7914	198.9293
2.9970	232.5672	402.7968	219.8300	236.5532	199.1207
3.0470	230.5665	409.8215	220.7856	240.9872	198.8472
3.0969	228.7680	416.2234	220.5612	245.6151	198.2016
3.1469	227.3321	421.6846	218.6151	249.9268	196.9645
3.1968	225.2465	426.1334	215.3684	253.7940	195.1007
3.2468	222.5032	430.5257	212.0160	257.0167	192.7625
3.2967	219.9229	433.8457	209.0767	259.3514	190.1866
3.3467	218.5395	436.4097	207.0269	260.5406	187.2144
3.3966	218.7410	437.1424	206.1736	260.4513	183.9938
3.4466	220.3067	436.6842	205.8999	259.0120	180.6018
3.4965	222.4473	434.9646	205.4543	256.1186	176.8530
3.5465	225.9830	433.0277	205.4842	251.1277	173.0337
3.5964	231.3204	430.1294	206.1097	243.9438	168.9948
3.6464	238.2193	426.6288	207.6260	235.0469	164.6350
3.6963	245.9888	422.4871	209.8759	225.3264	160.2716
3.7463	254.5985	415.8393	212.5651	215.4123	156.3331
3.7962	263.7220	408.0915	215.6621	205.7920	153.1007
3.8462	273.1187	399.2356	218.9257	196.3485	150.7710
3.8961	283.0906	391.5581	221.6102	187.4024	149.0258
3.9461	293.5898	383.9950	223.1914	179.2319	147.5447
3.9960	304.2954	376.2234	223.9358	172.3874	146.3735
4.0460	314.3742	368.9547	224.0270	167.5044	145.6965
4.0959	322.7979	361.9956	223.3085	163.9998	145.2816
4.1459	328.9357	354.1842	221.8471	161.3584	145.2723
4.1958	332.7689	345.9018	219.5243	159.1047	145.6362
4.2458	334.3143	338.5176	216.6632	157.1371	146.1404
4.2957	333.4752	333.2174	212.4653	155.3755	146.4404
4.3457	329.7517	331.7073	206.9857	153.8812	145.9286
4.3956	322.8129	334.4612	200.8789	152.4394	144.2196
4.4456	312.7924	340.7108	195.1174	151.2838	141.2367
4.4955	301.0187	349.9747	190.1147	150.5993	137.1577
4.5455	288.7756	360.8218	186.2291	150.2288	132.6831
4.5954	275.9078	372.2274	183.3565	149.6722	128.3036
4.6454	262.7903	383.8959	181.5887	149.0709	124.8219
4.6953	251.2925	396.0486	180.7691	148.6532	122.4065
4.7453	242.8645	408.9500	180.4163	148.5279	121.4322
4.7952	237.4104	421.4022	180.0598	148.8430	121.6542
4.8452	234.6530	432.0465	179.3693	149.8620	123.3103

Table H1: Velocity Spectra

Freq. (Hz)	69-3-v	60-3-v	51-3-v	45-3-v	36-3-v
4.8951	234.7690	440.4611	178.0837	151.4054	126.2446
4.9451	237.9088	446.2458	175.9467	153.4465	130.2045
4.9950	243.9059	448.7009	172.9269	155.6942	134.7651
5.0450	251.8969	447.2897	169.6129	157.6058	139.0402
5.0949	261.6231	441.2693	166.2975	159.0118	142.6063
5.1449	272.2681	430.7310	163.2477	159.8520	145.1376
5.1948	282.7530	415.9996	160.4674	160.3115	145.8180
5.2448	292.3452	398.2377	158.1832	160.6482	144.5467
5.2947	300.3154	378.6240	156.2995	161.0648	141.7391
5.3447	306.0910	357.4001	154.9429	161.5703	137.7329
5.3946	309.0566	334.3573	154.5553	162.3235	132.7611
5.4446	309.6344	310.8867	154.8444	163.3924	127.1859
5.4945	308.4063	288.5162	154.8900	164.2306	121.3735
5.5445	305.3911	269.0746	154.6361	164.2835	116.2127
5.5944	301.1466	253.1466	153.7901	163.5243	111.9999
5.6444	296.1617	240.9030	152.5681	162.2765	108.7676
5.6943	290.9787	232.6691	150.8420	160.8640	106.3126
5.7443	285.6640	227.9338	148.6625	159.4043	104.6611
5.7942	280.7290	225.7420	146.0718	157.7761	103.7162
5.8442	276.6644	225.8783	143.4751	155.5142	103.3255
5.8941	273.6041	228.0427	141.2226	152.5982	103.3825
5.9441	272.0020	232.1765	139.2703	149.2564	104.0218
5.9940	272.1276	237.4223	138.1617	145.7741	105.1947
6.0440	273.0679	243.3314	138.0450	142.8197	106.6766
6.0939	274.7740	249.3014	138.0878	140.5863	108.2886
6.1439	276.5984	254.9719	138.1149	139.2208	110.2830
6.1938	277.9158	260.2015	138.4314	138.7411	112.1697
6.2438	278.7232	265.9234	139.5489	139.1743	114.1991
6.2937	279.1256	272.2655	141.4824	140.1607	116.1188
6.3437	279.1228	278.0444	143.8117	141.2108	117.8025
6.3936	279.0167	282.2135	146.6692	142.4494	118.9210
6.4436	278.7501	284.8071	150.0070	143.5634	119.2066
6.4935	278.3763	285.1296	153.4414	144.0908	118.6362
6.5435	276.9209	283.2027	156.3897	143.8261	117.2595
6.5934	273.9558	278.7690	158.3735	142.6152	115.0548
6.6434	269.3234	272.0472	159.4416	140.7736	111.9413
6.6933	263.7830	264.1176	159.9699	138.4844	108.1637
6.7433	258.8753	256.3128	159.6139	135.7426	104.1166
6.7932	255.4923	249.4463	158.4854	132.1957	100.0638
6.8432	252.7878	243.5495	156.2303	127.9678	96.0785
6.8931	250.7020	239.1216	153.2336	123.3865	92.4365
6.9431	249.8127	236.8291	149.6932	119.1436	89.1494
6.9930	250.4193	237.0627	146.0138	115.6642	86.0838
7.0430	251.5760	239.2507	142.4095	113.1106	83.3187
7.0929	252.6491	242.5063	139.0208	111.7132	80.8591
7.1429	253.0729	246.3586	136.4294	111.5721	78.7862
7.1928	252.1076	250.5972	135.0808	112.7112	77.3226
7.2428	250.0215	254.5120	135.1506	114.5811	76.2667
7.2927	247.0767	256.8489	136.0818	116.4644	75.4794

Table H1: Velocity Spectra

Freq. (Hz)	69-3-v	60-3-v	51-3-v	45-3-v	36-3-v
7.3427	243.7042	256.6274	137.6756	118.2175	74.9690
7.3926	240.0377	254.3794	140.2376	119.6862	74.5913
7.4426	235.8560	250.5179	143.8655	120.4957	74.3441
7.4925	230.7690	245.0797	147.6023	120.3296	74.2282
7.5425	224.5402	238.0413	150.8500	119.1715	74.1956
7.5924	218.1297	230.0497	153.4424	116.9230	74.0866
7.6424	212.9173	222.2410	155.1407	113.7953	73.8179
7.6923	209.8459	215.4613	155.9998	109.9999	73.2307
7.7423	209.6615	209.8163	155.4654	105.6050	72.4215
7.7922	211.3245	204.9349	153.5843	100.5973	71.4311
7.8422	213.8568	200.8387	150.5702	95.5964	70.3053
7.8921	216.8749	197.6182	146.6352	91.3116	68.9296
7.9421	219.9167	196.1699	142.0047	88.4750	67.2378
7.9920	222.3374	196.2835	137.3026	87.2726	65.3586
8.0420	223.8893	197.5919	132.6930	87.4165	63.4835
8.0919	224.3075	199.3035	128.2566	88.6063	61.7007
8.1419	223.8208	201.6749	124.0826	90.7822	60.2663
8.1918	222.3255	204.9588	120.6652	93.5504	59.5626
8.2418	219.8912	208.6000	117.7753	96.2642	59.5552
8.2917	216.5792	212.3504	115.4205	98.3396	60.0236
8.3417	212.2963	215.6329	113.7808	99.5999	60.9862
8.3916	207.1047	217.9299	112.7831	99.9440	62.3412
8.4416	201.0789	218.3842	112.1044	99.4420	63.7932
8.4915	194.7950	217.2126	111.1537	98.0768	65.3166
8.5415	188.9380	215.1604	109.9291	95.8356	66.7433
8.5914	184.4574	213.2385	108.3376	93.0449	68.0439
8.6414	181.6422	211.8871	106.3756	90.2162	69.0621
8.6913	180.1706	211.4593	104.3825	87.4345	69.7738
8.7413	179.4589	212.5884	102.7977	84.9305	70.3238
8.7912	179.1647	215.9998	101.6263	82.8219	70.6900
8.8412	178.9459	222.0909	100.8781	81.2418	70.7650
8.8911	178.7111	230.3684	100.7362	80.4733	70.4886
8.9411	178.0173	239.9791	101.3027	80.7203	69.7495
8.9910	176.4933	249.6801	102.4974	81.8271	68.6912
9.0410	174.6721	257.5781	104.1523	83.5298	67.3916
9.0909	172.4544	262.5452	105.8181	85.6817	65.8999
9.1409	170.4778	263.8978	107.3142	88.2188	64.3337
9.1908	169.0188	261.2025	108.3595	90.7224	62.6721
9.2408	168.7370	253.9372	108.4870	92.8700	60.9616
9.2907	169.6482	242.7660	107.8650	94.6722	59.2932
9.3407	171.4018	228.9406	106.5774	95.9290	57.7535
9.3906	173.7261	214.3874	104.4235	96.9110	56.5784
9.4406	176.9168	200.6128	101.7697	97.1438	55.9356
9.4905	180.7940	189.2406	98.5114	96.7082	55.9560
9.5405	185.2765	180.6971	95.1379	95.5004	56.5656
9.5904	189.5063	175.1207	91.6650	93.8229	57.7150
9.6404	192.9044	172.6596	88.1036	91.9501	59.2210
9.6903	194.8719	173.1657	84.9549	90.0035	60.9132
9.7403	195.1956	175.4228	82.5003	88.1108	62.6301

Table H1: Velocity Spectra

Freq. (Hz)	69-3-v	60-3-v	51-3-v	45-3-v	36-3-v
9.7902	194.1397	178.5732	80.9356	86.4475	64.2335
9.8402	191.9823	182.0437	80.3157	85.1571	65.5948
9.8901	189.0987	185.2416	80.5153	84.5999	66.5406
9.9401	186.4763	187.6691	81.3895	84.8785	66.8770
9.9900	184.7151	188.9109	83.1168	86.0639	66.6333
10.0400	184.3344	189.0532	85.7115	87.7295	65.8323
10.0899	185.5533	188.0757	89.2250	89.6891	64.4442
10.1399	188.5007	186.7770	93.3986	91.7357	62.5835
10.1898	192.9948	185.0468	98.0259	93.6341	60.4663
10.2398	199.2665	183.2924	103.0124	95.1482	58.2952
10.2897	206.8230	182.4364	107.8361	96.2190	56.2435
10.3397	214.7556	182.9093	112.1857	96.8106	54.2524
10.3896	222.4413	184.7271	115.4285	96.7895	52.4259
10.4396	229.1492	187.0776	117.5499	95.9921	50.9557
10.4895	233.7061	189.4404	118.2167	94.5314	49.8461
10.5395	235.7686	191.6081	117.4100	92.5157	49.1984
10.5894	234.9788	193.5742	115.3186	90.0734	49.0819
10.6394	231.8325	195.3394	112.0329	87.4027	49.3562
10.6893	226.3994	196.7900	108.0688	84.3279	50.0473
10.7393	218.8669	197.0662	103.7739	80.9421	51.1298
10.7892	209.9578	196.5792	99.2175	77.6391	52.6729
10.8392	200.8504	195.8643	94.5612	74.7254	54.4887
10.8891	192.7371	195.3505	90.4122	72.6630	56.2966
10.9391	186.4023	195.4817	87.6222	71.4761	58.0319
10.9890	181.4284	197.1427	86.7801	71.2747	59.7142
11.0390	177.7279	201.6825	88.1906	71.9632	61.4100
11.0889	175.6482	210.6891	91.4280	73.2865	63.1180
11.1389	175.2149	224.5602	95.9505	75.0539	64.7616
11.1888	176.3355	241.9019	101.3817	77.1132	66.1706
11.2388	178.4721	261.1897	107.0608	79.2785	67.2080
11.2887	181.6352	280.6371	112.0742	81.4480	67.8112
11.3387	184.7074	298.0944	115.8815	83.5662	68.1229
11.3886	187.5702	311.9338	117.9859	85.5284	68.1949
11.4386	189.8808	320.3952	118.2751	87.1507	68.0825
11.4885	191.6282	322.8269	116.7232	88.3236	67.8281
11.5385	193.0391	319.3857	113.7119	88.8580	67.4079
11.5884	193.8739	310.3374	109.3481	88.6397	66.7260
11.6384	194.3613	296.8956	103.9775	87.8350	65.7570
11.6883	194.3764	280.1686	98.2752	86.7155	64.4727
11.7383	194.1515	262.3510	93.1317	85.5487	63.1403
11.7882	194.0338	245.6661	89.2956	84.3681	61.9352
11.8382	194.6200	231.4368	87.3778	83.3409	60.8720
11.8881	194.9648	220.4054	87.7698	82.6223	60.1181
11.9381	194.3523	212.6176	90.4192	82.0625	59.7979
11.9880	193.0068	208.3514	94.7052	81.5304	59.8081
12.0380	191.0431	207.0536	100.0839	81.1963	60.0215
12.0879	188.4504	207.6701	105.6482	81.2186	60.2582
12.1379	185.9526	208.2864	110.6127	81.4817	60.2283
12.1878	183.6701	208.1676	114.6141	82.3042	59.9274

Table H1: Velocity Spectra

Freq. (Hz)	69-3-v	60-3-v	51-3-v	45-3-v	36-3-v
12.2378	181.8537	207.1860	117.3483	83.9146	59.5614
12.2877	180.1377	205.9419	118.6132	86.3702	59.1530
12.3377	178.4031	204.6824	118.3802	89.5840	58.6658
12.3876	176.6472	203.7760	116.7903	93.2662	58.1226
12.4376	174.3752	202.7329	113.9657	96.8392	57.3995
12.4875	171.5783	201.6731	110.1023	99.9000	56.5434

Table H1: Velocity Spectra

Freq. (Hz)	75-12-w	69-12-w	60-12-w	51-12-w	45-12-w	36-12-w	27-12-w	18-12-w
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0500	1.5220	1.2250	1.6610	1.8030	1.7640	1.6685	1.7125	1.7835
0.0999	3.0430	2.5395	3.3067	3.6064	3.5584	3.2907	3.4286	3.5994
0.1499	4.5675	4.0083	4.9287	5.4159	5.4084	4.8732	5.1730	5.4758
0.1998	6.0979	5.6643	6.5075	7.2148	7.3187	6.4376	6.9411	7.4326
0.2498	7.6289	7.5365	8.0635	8.9928	9.2976	8.0236	8.7255	9.5024
0.2997	9.1558	9.5904	9.6354	10.6783	11.3077	9.6713	10.5225	11.6763
0.3497	10.6798	11.7744	11.2848	12.2255	13.3306	11.4632	12.3269	13.9460
0.3996	12.2118	14.0060	13.0429	13.6304	15.3486	13.4705	14.1418	16.2437
0.4496	13.7937	16.2081	14.9132	14.8908	17.3860	15.7180	15.9698	18.4831
0.4995	15.4845	18.3067	16.9231	15.9890	19.4755	18.1618	17.8272	20.5444
0.5495	17.2268	20.2271	19.1556	17.0125	21.6338	20.7436	19.7930	22.4086
0.5994	18.8991	21.9380	21.6264	18.0300	23.8741	23.4246	21.9500	24.0659
0.6494	20.3912	23.4433	24.3265	19.1638	26.1708	26.1903	24.4109	25.5734
0.6993	21.6433	24.7692	27.2237	20.5035	28.4755	28.9580	27.1958	26.9510
0.7493	22.6738	25.9707	30.1968	22.1343	30.7887	31.5980	30.2043	28.1662
0.7992	23.6244	27.1009	33.1428	24.1598	33.1188	34.0539	33.2467	29.2267
0.8492	24.6098	28.2529	36.0400	26.6394	35.4966	36.3288	36.1844	30.1891
0.8991	25.7322	29.4635	38.8951	29.4815	37.8431	38.4455	38.8321	31.0819
0.9491	27.0683	30.7888	41.6370	32.6870	40.1469	40.4791	41.0676	31.9087
0.9990	28.7013	32.2277	44.2657	36.2437	42.3376	42.5075	42.7572	32.8172
1.0490	30.7042	33.7988	46.7225	40.0718	44.4461	44.7503	43.7643	33.8932
1.0989	33.0219	35.4505	48.9230	44.0549	46.5604	47.2307	44.0769	35.0329
1.1489	35.6274	37.1784	50.8503	48.0355	48.8397	49.9657	43.7731	36.2593
1.1988	38.4335	38.9370	52.5194	51.8121	51.3446	52.7952	42.9170	37.5584
1.2488	41.2604	40.7234	54.0106	55.1595	54.0980	55.6465	41.6725	38.9001
1.2987	43.9870	42.5324	55.2986	57.9480	56.9999	58.4155	40.2857	40.2207
1.3487	46.5302	44.2374	56.1464	60.1925	59.9362	61.0152	38.9639	41.4725
1.3986	48.8671	45.7902	56.4195	61.8601	62.8671	63.3706	38.0279	42.6153
1.4486	50.9328	47.1519	56.1333	63.0431	65.7809	65.3029	37.7071	43.6318
1.4985	52.5974	48.3266	55.3995	63.9560	68.5414	66.7132	38.2867	44.5954
1.5485	53.7175	49.3507	54.3214	64.6963	70.9678	67.6540	39.7810	45.6188
1.5984	54.1698	50.2857	52.9070	65.2627	72.8870	68.1877	42.0539	46.7372
1.6484	54.0675	51.1004	51.0839	65.5074	74.2604	68.2602	44.9848	48.1498
1.6983	53.4115	51.7302	48.8941	65.4525	75.2517	67.8471	48.3846	49.9470
1.7483	52.3091	52.1343	46.5223	65.2466	75.9986	67.0123	51.8895	52.1693
1.7982	50.9070	52.3816	44.2357	64.9869	76.6033	65.9220	55.3306	54.7732
1.8482	49.2360	52.5443	42.3053	64.7424	77.1254	64.8349	58.4770	57.6823
1.8981	47.2627	52.6723	40.8661	64.5544	77.6323	63.9090	61.1758	60.6823
1.9481	45.2154	52.7351	39.9945	64.3847	78.2357	63.1964	63.2938	63.5860
1.9980	43.2567	52.7472	39.7003	64.0759	78.9210	62.7172	64.7152	66.3736
2.0480	41.4515	52.8998	40.0589	63.4266	79.6262	62.4230	65.2288	68.9357
2.0979	39.8601	53.2237	41.0349	62.2237	80.4754	62.2237	64.8041	70.9090
2.1479	38.5333	53.5471	42.6573	60.4204	81.2765	62.2461	63.5349	72.2554
2.1978	37.8022	53.7142	44.7692	58.2417	81.8241	62.5054	61.6043	72.8571
2.2478	37.7630	53.8348	47.1139	56.0377	82.0447	62.8485	59.1621	72.5590
2.2977	38.4175	54.0419	49.4006	54.1568	81.7751	63.0719	56.3626	71.2747
2.3477	39.7231	54.1614	51.5320	52.9406	80.9252	63.2470	53.5276	69.0693
2.3976	41.5504	54.1618	53.3946	52.6033	79.5524	63.3446	50.9490	66.2457

Table H1: Velocity Spectra

Freq. (Hz)	75-12-w	69-12-w	60-12-w	51-12-w	45-12-w	36-12-w	27-12-w	18-12-w
2.4476	43.5183	54.1164	54.8752	53.0884	77.7847	63.1970	48.8296	63.1970
2.4975	45.4295	53.9960	55.8191	54.1958	75.5744	62.8371	47.2527	60.2397
2.5475	47.0269	53.7777	56.1724	55.5100	73.1387	62.4138	46.1352	57.5735
2.5974	48.2337	53.4805	55.9480	56.7532	70.5714	62.0259	45.3506	55.4285
2.6474	48.9504	53.0804	55.1983	57.8986	67.8793	61.7109	44.8999	53.8481
2.6973	49.2257	52.6783	53.8651	58.9360	65.3016	61.4984	44.6673	52.5974
2.7473	48.9569	52.2536	52.1438	59.7263	62.8308	61.3197	44.5887	51.5119
2.7972	48.1958	51.8321	50.4055	60.1678	60.4195	61.0069	44.4475	50.4615
2.8472	47.0927	51.4204	48.7441	60.0759	58.3961	60.4745	43.9892	49.4274
2.8971	45.6873	51.0179	47.3386	59.2457	56.8121	59.6803	43.2827	48.4105
2.9471	44.2360	50.6017	46.5052	57.7632	55.8181	58.6178	42.4972	47.5073
2.9970	42.7073	50.1998	46.3636	55.7742	55.3846	57.4525	41.6883	46.9930
3.0470	41.2259	49.7880	46.8019	53.4444	55.5468	56.2172	40.9517	46.8933
3.0969	40.1049	49.2097	47.6303	50.9440	56.2397	55.0939	40.3836	47.1658
3.1469	39.3048	48.4937	48.6511	48.6511	57.5253	54.0952	40.0600	47.9273
3.1968	38.8731	47.7602	49.7742	46.8331	59.2687	53.1628	40.0559	49.1668
3.2468	38.6369	47.1760	50.9423	45.7149	61.3645	52.2735	40.2928	50.8449
3.2967	38.4066	46.7142	52.0549	45.3296	63.3955	51.4285	40.8131	52.8131
3.3467	38.0185	46.2849	53.0452	45.5821	65.3611	50.7360	41.7668	55.1536
3.3966	37.5324	45.9220	53.8021	46.1938	67.2187	50.1338	43.1029	57.7422
3.4466	36.9131	45.5985	54.2495	46.9082	68.8975	49.5966	44.5645	60.3155
3.4965	36.2937	45.3496	54.5804	47.4475	70.2447	49.1608	46.1888	62.4475
3.5465	35.7133	45.2533	54.7934	47.8423	71.1783	48.9772	47.6650	63.8725
3.5964	35.1188	45.3866	54.8811	48.0839	71.4964	49.0549	48.9470	64.6633
3.6464	34.5278	45.7259	54.8783	48.2054	71.1777	49.3358	49.8463	64.6871
3.6963	33.9099	45.9820	54.7052	48.0889	70.3776	49.7892	50.3066	64.0569
3.7463	33.2784	46.0046	54.4337	47.6904	69.1192	50.3877	50.2753	62.8629
3.7962	32.6929	45.7822	54.1718	47.1108	67.3066	51.0969	49.7302	61.2707
3.8462	32.3542	45.3082	53.8468	46.3467	65.0777	51.8468	48.6929	59.2315
3.8961	32.3376	44.6103	53.3376	45.3896	62.5324	52.5584	47.3376	56.9220
3.9461	32.5672	43.7228	52.6804	44.3936	59.9807	53.2329	45.7748	54.4167
3.9960	33.0030	42.7972	51.7882	43.4365	57.6623	53.7062	44.0759	51.8281
4.0460	33.6223	41.9166	50.3727	42.6044	55.6730	53.8523	42.2402	49.2398
4.0959	34.4301	41.2867	48.4135	41.9830	54.3526	53.7382	40.3569	46.9390
4.1459	35.2277	40.9408	46.1024	41.6248	53.7309	53.3577	38.4366	45.0245
4.1958	35.9832	40.9426	43.5944	41.6475	53.9160	52.7832	36.5958	43.4265
4.2458	36.6455	41.2310	41.0229	42.0164	54.5161	52.0535	35.0151	42.1141
4.2957	37.2136	41.6812	38.5539	42.7336	55.3286	51.1188	33.7857	40.9509
4.3457	37.6251	42.1707	36.2736	43.8481	56.1899	50.0190	32.9274	40.0587
4.3956	37.9121	42.5406	34.3824	45.2747	56.9670	48.7472	32.2593	39.3846
4.4456	38.0277	42.7267	32.9775	46.8122	57.5705	47.3901	31.6482	38.8279
4.4955	37.8746	42.7387	32.1069	48.3266	57.9020	45.9890	31.0684	38.3691
4.5455	37.4640	42.5550	31.6367	49.7278	57.9551	44.6868	30.5049	37.9504
4.5954	36.8597	42.0433	31.4325	50.9170	57.5804	43.3806	29.9069	37.4801
4.6454	36.1226	41.2651	31.5841	51.6568	56.8132	42.0130	29.2939	36.7683
4.6953	35.2617	40.3092	31.9656	51.8831	55.6393	40.4923	28.7540	35.8017
4.7453	34.3607	39.3148	32.5053	51.7238	54.0964	38.8403	28.3437	34.6265
4.7952	33.5137	38.4048	33.1876	51.1648	52.5074	37.2731	27.9848	33.3362
4.8452	32.7487	37.6617	33.8825	50.2447	51.0684	36.0628	27.6079	32.1818

Table H1: Velocity Spectra

Freq. (Hz)	75-12-w	69-12-w	60-12-w	51-12-w	45-12-w	36-12-w	27-12-w	18-12-w
4.8951	32.0482	37.1391	34.3636	49.0000	49.8321	35.2496	27.1972	31.4412
4.9451	31.3964	36.8954	34.5910	47.5372	48.7834	34.8827	26.8568	31.3519
4.9950	30.8941	36.8381	34.5454	45.9041	47.8421	34.9300	26.6283	31.9230
5.0450	30.5374	36.7932	34.2505	44.1892	46.9538	35.4159	26.5619	33.1860
5.0949	30.3860	36.6935	33.7741	42.4303	46.1955	36.3063	26.7177	35.1548
5.1449	30.3343	36.4568	33.2000	40.6344	45.6713	37.4909	27.1085	37.4806
5.1948	30.2857	36.0311	32.6909	38.8779	45.4129	38.7324	27.6675	39.8493
5.2448	30.1681	35.5388	32.3552	37.2433	45.2941	39.7818	28.2905	42.0685
5.2947	29.9627	35.0880	32.2447	35.8134	45.2009	40.4039	28.8614	44.0095
5.3447	29.6738	34.7352	32.4316	34.6711	45.1039	40.5663	29.3691	45.5368
5.3946	29.2225	34.5147	32.8801	33.7756	44.9424	40.2977	29.8645	46.5446
5.4446	28.6332	34.4371	33.5333	33.0542	44.7873	39.5605	30.3972	46.9379
5.4945	27.9780	34.4780	34.2472	32.5714	44.7802	38.3516	30.9395	46.6978
5.5445	27.4176	34.5977	34.9082	32.3577	44.9548	36.8931	31.5094	45.8253
5.5944	27.0154	34.7860	35.4349	32.3860	45.2251	35.4070	32.0335	44.4195
5.6444	26.8053	35.0122	35.8024	32.7601	45.4882	34.0188	32.4327	42.7055
5.6943	26.7518	35.1509	35.9424	33.4085	45.7138	32.8219	32.6397	40.9022
5.7443	26.9120	35.0517	35.8215	34.3739	45.8223	31.9441	32.5300	39.1819
5.7942	27.3139	34.7015	35.4431	35.5011	45.7278	31.5668	32.1462	37.6565
5.8442	27.9353	34.1477	34.8373	36.6022	45.3335	31.6931	31.5645	36.5204
5.8941	28.6807	33.3783	34.0384	37.5985	44.6537	32.1523	30.8261	35.8302
5.9441	29.4768	32.4548	33.1562	38.3811	43.7842	32.7342	30.0355	35.5279
5.9940	30.2098	31.3786	32.2357	38.8591	42.7732	33.3266	29.2507	35.4905
6.0440	30.8002	30.2865	31.3623	39.0261	41.7217	33.9794	28.4491	35.6777
6.0939	31.2251	29.3360	30.5487	38.9035	40.6707	34.6438	27.6297	36.1246
6.1439	31.4322	28.6244	29.7795	38.5345	39.6527	35.2537	26.7997	36.7221
6.1938	31.3468	28.1446	29.0799	37.9928	38.5254	35.7258	25.9458	37.2805
6.2438	31.0254	27.8723	28.4218	37.4441	37.2568	36.0205	25.0314	37.7937
6.2937	30.5496	27.7049	27.7741	36.9063	35.9056	36.1636	24.1489	38.2594
6.3437	30.0691	27.5570	27.1447	36.3177	34.6049	36.1845	23.3575	38.6395
6.3936	29.6663	27.4094	26.5590	35.7914	33.5472	36.1111	22.7676	38.8795
6.4436	29.4215	27.3531	26.0386	35.3560	32.8430	35.9811	22.3593	39.0160
6.4935	29.3506	27.5389	25.6234	35.0454	32.5194	35.9091	22.1298	39.0389
6.5435	29.4196	27.9473	25.3757	34.8638	32.4819	36.0481	22.1301	38.9600
6.5934	29.5384	28.5428	25.3187	34.8132	32.4989	36.3428	22.3450	38.7692
6.6434	29.6229	29.2708	25.3977	34.9310	32.4530	36.6915	22.6939	38.4653
6.6933	29.6312	30.0998	25.5885	35.1131	32.3086	36.9738	23.1521	38.1117
6.7433	29.5626	31.0394	25.9010	35.1528	32.0914	37.2028	23.7229	37.7962
6.7932	29.4417	31.9892	26.3033	34.9442	31.8058	37.4577	24.4283	37.5528
6.8432	29.2547	32.8200	26.7501	34.4897	31.4719	37.6992	25.2583	37.4049
6.8931	28.8959	33.3833	27.1312	33.8520	31.0810	37.8087	26.1111	37.3330
6.9431	28.4181	33.5629	27.3280	33.1186	30.6816	37.6871	26.9323	37.2289
6.9930	27.9300	33.3007	27.2447	32.4405	30.2447	37.3146	27.6643	37.1678
7.0430	27.5100	32.5809	26.9395	31.8837	29.8412	36.6799	28.1931	37.1518
7.0929	27.1516	31.4145	26.5204	31.4996	29.5348	35.7198	28.4283	37.1668
7.1429	26.8287	29.8216	26.0359	31.3216	29.4073	34.4645	28.4145	37.1859
7.1928	26.5702	27.9081	25.5201	31.3246	29.4977	33.0725	28.1167	37.1436
7.2428	26.4072	25.8133	25.0239	31.4772	29.7896	31.6293	27.5516	37.0687
7.2927	26.3923	23.6575	24.6129	31.7160	30.2137	30.2939	26.7934	37.0105

Table H1: Velocity Spectra

Freq. (Hz)	75-12-w	69-12-w	60-12-w	51-12-w	45-12-w	36-12-w	27-12-w	18-12-w
7.3427	26.5071	21.6022	24.4071	32.0142	30.7219	29.0844	25.9418	37.0219
7.3926	26.6873	19.8491	24.4473	32.2687	31.1820	28.0845	25.0535	37.0517
7.4426	26.8306	18.4949	24.7020	32.3828	31.4673	27.2995	24.1587	37.0865
7.4925	26.8831	17.5924	25.0999	32.2327	31.5359	26.7407	23.3766	37.0729
7.5425	26.8362	17.0536	25.5464	31.8595	31.3693	26.4440	22.7633	36.9507
7.5924	26.7101	16.9007	25.9205	31.3035	30.9542	26.2166	22.3520	36.7017
7.6424	26.5115	17.1801	26.1141	30.6537	30.2868	25.9765	22.1095	36.2632
7.6923	26.2461	17.8000	26.1538	29.9538	29.4154	25.6923	22.0461	35.7384
7.7423	25.9057	18.5893	26.0451	29.2194	28.4375	25.3870	22.1507	35.0881
7.7922	25.4727	19.4571	25.7844	28.4961	27.4285	25.1298	22.3636	34.2779
7.8422	24.9774	20.3035	25.4166	27.8320	26.4361	24.8755	22.6091	33.2980
7.8921	24.3708	21.0640	24.9548	27.2277	25.5073	24.5444	22.8161	32.1682
7.9421	23.6833	21.6978	24.4855	26.6855	24.7794	24.1758	22.9288	30.9345
7.9920	22.9290	22.1938	24.0240	26.2218	24.3356	23.7682	22.9290	29.6184
8.0420	22.1798	22.5417	23.6435	25.7666	24.2145	23.3459	22.7910	28.1872
8.0919	21.4193	22.7544	23.4180	25.2629	24.3971	22.9648	22.5198	26.6952
8.1419	20.6886	22.7892	23.2696	24.7107	24.8735	22.7485	22.1460	25.2643
8.1918	20.0453	22.6667	23.1828	24.1003	25.5256	22.6913	21.6591	23.9610
8.2418	19.5083	22.3765	23.1512	23.4232	26.2172	22.6979	21.1072	22.8710
8.2917	19.0709	21.9398	23.1836	22.7441	26.8236	22.6861	20.5883	22.1057
8.3417	18.7188	21.4048	23.2567	22.1138	27.2106	22.6227	20.1369	21.7468
8.3916	18.4280	20.8112	23.3286	21.4909	27.3314	22.5147	19.7454	21.7510
8.4416	18.2001	20.2007	23.3495	20.9014	27.1566	22.3787	19.3988	22.0410
8.4915	18.0105	19.5984	23.2922	20.3456	26.7482	22.1968	19.1059	22.5364
8.5415	17.8517	19.0475	23.1304	19.7992	26.1028	21.9687	18.8340	23.1389
8.5914	17.7069	18.5918	22.8961	19.2619	25.2845	21.6761	18.5574	23.7552
8.6414	17.5680	18.2506	22.6059	18.7346	24.3774	21.3097	18.2593	24.2996
8.6913	17.3826	17.9910	22.2932	18.1648	23.4317	20.8939	17.9215	24.7528
8.7413	17.1679	17.7885	22.0106	17.6574	22.5088	20.5421	17.5176	25.0438
8.7912	16.9406	17.6615	21.7846	17.2747	21.6615	20.3077	17.0725	25.1428
8.8412	16.7099	17.5851	21.5902	17.0282	20.8652	20.1403	16.6391	25.0648
8.8911	16.4752	17.4977	21.3920	16.9287	20.1117	19.9516	16.2085	24.8240
8.9411	16.2639	17.4083	21.1815	16.9434	19.4827	19.7509	15.7810	24.4092
8.9910	16.1119	17.2897	20.9131	17.0290	19.0699	19.5374	15.3836	23.8891
9.0410	16.0387	17.1146	20.6044	17.1689	18.8414	19.3206	15.0261	23.3348
9.0909	16.0182	16.8818	20.2909	17.3727	18.7000	19.0454	14.7818	22.8272
9.1409	16.0240	16.6090	19.9546	17.6054	18.5469	18.7114	14.6803	22.4318
9.1908	16.0104	16.3229	19.6040	17.8393	18.4367	18.2621	14.7053	22.1774
9.2408	15.9404	16.0605	19.2301	18.0473	18.3892	17.7239	14.8684	22.0578
9.2907	15.8128	15.8499	18.8508	18.1912	18.4513	17.1506	15.1810	22.0282
9.3407	15.6083	15.7111	18.4666	18.2891	18.6440	16.5797	15.5990	22.0441
9.3906	15.3630	15.7011	18.0675	18.2929	19.0160	16.0485	16.0861	21.9834
9.4406	15.1144	15.7941	17.6350	18.1732	19.5798	15.6053	16.5777	21.7795
9.4905	14.8621	15.9440	17.1493	17.9370	20.3192	15.2228	16.9880	21.4201
9.5405	14.5874	16.1521	16.6386	17.6213	21.1227	14.9309	17.3065	20.9032
9.5904	14.2993	16.4092	16.1119	17.3011	21.9141	14.7596	17.5121	20.2741
9.6404	14.0364	16.6393	15.6078	17.0057	22.5778	14.7402	17.5648	19.5797
9.6903	13.7796	16.8127	15.1459	16.7255	23.0145	14.8455	17.4232	18.9542
9.7403	13.5585	16.9481	14.7858	16.5098	23.1722	15.0293	17.0942	18.4481

Table H1: Velocity Spectra

Freq. (Hz)	75-12-w	69-12-w	60-12-w	51-12-w	45-12-w	36-12-w	27-12-w	18-12-w
9.7902	13.3734	17.0937	14.5287	16.3594	23.0168	15.1944	16.6433	18.1315
9.8402	13.2154	17.2499	14.3765	16.1674	22.5636	15.2720	16.1182	17.9780
9.8901	13.0846	17.4362	14.3505	15.9428	21.8967	15.2604	15.5176	17.8912
9.9401	12.9917	17.6934	14.4628	15.7153	21.1028	15.1885	14.9102	17.8425
9.9900	12.9171	18.0320	14.7452	15.5544	20.2697	15.0549	14.3357	17.8421
10.0400	12.8311	18.4334	15.1805	15.5218	19.4274	14.8893	13.8050	17.8812
10.0899	12.7133	18.8681	15.7503	15.6293	18.6360	14.7010	13.3489	17.9298
10.1399	12.5938	19.2658	16.4165	15.8588	17.9780	14.5406	12.9791	17.9476
10.1898	12.4723	19.5644	17.1189	16.1508	17.5265	14.4797	12.6659	17.8831
10.2398	12.4311	19.6911	17.7763	16.4861	17.3155	14.5405	12.4516	17.6944
10.2897	12.5123	19.6019	18.2951	16.7928	17.3484	14.7143	12.3065	17.3999
10.3397	12.7282	19.3042	18.6218	17.0398	17.5982	14.9719	12.2008	17.0502
10.3896	13.0909	18.7948	18.7532	17.1844	18.0363	15.3143	12.1662	16.6649
10.4396	13.5819	18.0918	18.6556	17.1627	18.5512	15.7325	12.1621	16.2962
10.4895	14.1398	17.2972	18.3356	16.9720	18.9755	16.1853	12.2098	16.0280
10.5395	14.7448	16.5049	17.8012	16.6524	19.2662	16.5997	12.3101	15.9146
10.5894	15.3335	15.7570	17.0489	16.2124	19.3786	16.9325	12.4425	15.9688
10.6394	15.8846	15.0760	16.1506	15.6718	19.3105	17.1294	12.5545	16.2144
10.6893	16.3119	14.5481	15.2002	15.0719	19.0911	17.1884	12.6668	16.6860
10.7393	16.5600	14.1759	14.2511	14.4981	18.7616	17.1077	12.8012	17.3010
10.7892	16.6046	13.9504	13.3570	14.0367	18.3416	16.9067	12.9578	17.9317
10.8392	16.4105	13.8308	12.5626	13.7007	17.8630	16.6273	13.1046	18.5134
10.8891	16.0288	13.7747	11.9562	13.5678	17.3790	16.3445	13.1976	19.0233
10.9391	15.4788	13.7614	11.5626	13.6958	16.9118	16.0805	13.2144	19.4278
10.9890	14.8352	13.7253	11.4176	14.0549	16.5494	15.8461	13.1538	19.7033
11.0390	14.1078	13.6221	11.4806	14.5163	16.3598	15.7195	12.9929	19.8260
11.0889	13.3621	13.4287	11.7099	15.0255	16.3561	15.6797	12.7633	19.7382
11.1389	12.6427	13.1216	12.0634	15.4831	16.4744	15.7170	12.4867	19.4262
11.1888	11.9608	12.7329	12.4755	15.8433	16.6042	15.8098	12.1734	18.9203
11.2388	11.3737	12.2728	12.9021	16.1277	16.6896	15.9141	11.8794	18.2518
11.2887	10.8936	11.7741	13.2981	16.3347	16.7073	15.9961	11.6048	17.4975
11.3387	10.4962	11.3058	13.6631	16.4865	16.6112	16.0669	11.3727	16.7359
11.3886	10.1632	10.8978	13.9738	16.5932	16.3768	16.1490	11.1802	16.0238
11.4386	9.8749	10.5967	14.1381	16.6203	16.0484	16.1971	11.0245	15.4650
11.4885	9.6389	10.4568	14.1538	16.5434	15.6473	16.1643	10.8819	15.1074
11.5385	9.4662	10.4366	14.0193	16.3501	15.2308	16.0154	10.7493	14.9308
11.5884	9.3403	10.5454	13.7670	16.0615	14.8795	15.7139	10.6254	14.8911
11.6384	9.2560	10.7806	13.4191	15.7118	14.6527	15.3278	10.5770	14.9786
11.6883	9.1964	11.1144	12.9857	15.3234	14.5636	14.9143	10.6317	15.1363
11.7383	9.1477	11.4977	12.4896	14.8959	14.6142	14.5203	10.7640	15.3067
11.7882	9.1040	11.8943	11.9414	14.4641	14.7706	14.1812	10.9171	15.4425
11.8382	9.0527	12.2762	11.3943	14.0401	15.0227	13.9217	11.0699	15.5554
11.8881	9.0017	12.6252	10.8931	13.6594	15.3475	13.7545	11.2045	15.6566
11.9381	8.9440	12.9051	10.4685	13.3587	15.7105	13.6811	11.2911	15.6867
11.9880	8.8723	13.0789	10.0903	13.1748	16.1119	13.6423	11.3131	15.6084
12.0380	8.8046	13.1214	9.7628	13.1214	16.4800	13.6150	11.2591	15.4207
12.0879	8.7637	13.0549	9.4902	13.2000	16.7417	13.5747	11.1463	15.0978
12.1379	8.7745	12.8540	9.3207	13.4488	16.8474	13.5216	10.9702	14.6869
12.1878	8.8483	12.5412	9.2688	13.8697	16.8192	13.4188	10.7362	14.2232

Table H1: Velocity Spectra

Freq. (Hz)	75-12-w	69-12-w	60-12-w	51-12-w	45-12-w	36-12-w	27-12-w	18-12-w
12.2378	8.9838	12.1264	9.3436	14.4161	16.6679	13.2903	10.4560	13.7798
12.2877	9.1887	11.6733	9.5475	14.9664	16.4409	13.1724	10.1152	13.3813
12.3377	9.4457	11.2495	9.8480	15.4468	16.1871	13.1026	9.7381	13.0533
12.3876	9.7342	10.9358	10.2074	15.7942	15.9676	13.0937	9.3551	12.8088
12.4376	10.0185	10.7946	10.6031	15.9948	15.7584	13.1341	9.0048	12.6242
12.4875	10.2885	10.8404	11.0015	16.0090	15.5719	13.2867	8.7300	12.4788

Table H1: Velocity Spectra

Freq. (Hz)	75-9-w	69-9-w	60-9-w	51-9-w	45-9-w	36-9-w	27-9-w	18-9-w
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0500	3.3225	3.5815	2.2250	2.3400	2.5045	1.9800	1.5455	2.2840
0.0999	6.4855	7.0380	4.4945	4.6873	5.1009	3.9810	3.1179	4.5494
0.1499	9.3852	10.2667	6.8804	7.0693	7.8653	6.0275	4.7443	6.8324
0.1998	11.9540	13.1768	9.4246	9.4905	10.8012	8.1199	6.4495	9.1848
0.2498	14.1986	15.7349	12.1528	11.9629	13.8639	10.2818	8.2709	11.6881
0.2997	16.1718	17.9340	15.0599	14.4725	16.9630	12.5185	10.2138	14.3287
0.3497	18.0305	19.8315	18.1494	17.0059	19.9889	14.8343	12.3129	17.0584
0.3996	19.9600	21.4106	21.4465	19.5444	22.8012	17.2028	14.5694	19.7882
0.4496	22.2192	22.7498	24.8764	22.1023	25.2316	19.6565	16.9949	22.4530
0.4995	24.9800	23.8361	28.2867	24.6903	27.1728	22.2078	19.5005	24.9550
0.5495	28.3652	24.7825	31.5413	27.3871	28.6015	24.9088	22.0075	27.2167
0.5994	32.0679	25.6184	34.5254	30.2277	29.5864	27.7762	24.4256	29.2507
0.6494	35.9053	26.4955	37.1522	33.2428	30.3205	30.8075	26.6709	31.0673
0.6993	39.7342	27.4196	39.2797	36.5384	31.0209	33.9370	28.6293	32.7272
0.7493	43.4294	28.4060	40.8219	40.1100	31.8453	37.0754	30.2118	34.2805
0.7992	46.8651	29.4345	41.7982	43.8441	32.8951	40.1358	31.3446	35.8281
0.8492	49.8565	30.5542	42.2817	47.6146	34.3756	43.1054	32.1167	37.3988
0.8991	52.3096	31.8461	42.4465	51.3476	36.4405	45.8091	32.5924	39.0119
0.9491	54.2411	33.3324	42.5861	54.8865	39.1599	48.2617	32.9148	41.0011
0.9990	55.7042	34.9950	42.8771	58.1918	42.3276	50.4095	33.2967	43.7162
1.0490	56.8663	36.9248	43.5335	61.2196	45.7993	52.2507	33.9037	47.2155
1.0989	57.8021	39.1208	44.5604	63.9560	49.3076	53.8241	34.8681	51.4835
1.1489	58.5824	41.6361	45.9215	66.3834	52.7115	55.2736	36.2938	56.4340
1.1988	59.2087	44.7152	47.6043	68.3436	55.7802	56.7392	38.1818	61.6543
1.2488	59.6802	48.5533	49.3776	69.7705	58.3314	58.2815	40.5485	66.7608
1.2987	60.1038	52.9740	51.1558	70.6103	60.2337	59.9870	43.2857	71.3376
1.3487	60.5836	57.6839	52.9365	71.1035	61.4333	61.7570	46.1930	75.2979
1.3986	60.9790	62.4615	54.5594	71.3845	61.9020	63.7062	49.0209	78.6013
1.4486	61.3048	67.0412	55.9015	71.5898	61.8262	65.9548	51.6860	81.3099
1.4985	61.4535	71.1188	56.9580	71.6583	61.4835	68.4065	54.0359	83.3466
1.5485	61.2896	74.6532	57.7591	71.6801	61.0574	70.8439	55.9163	84.7494
1.5984	60.8351	77.6663	58.4215	71.8960	60.7712	73.1748	57.2707	85.7542
1.6484	60.2985	80.1122	59.0622	72.2823	60.7271	75.2989	58.1885	86.4586
1.6983	60.0009	81.7901	59.5764	72.8231	60.8331	77.1028	58.9310	87.0888
1.7483	60.1066	82.5897	60.0891	73.6384	61.0157	78.5336	59.7044	87.7821
1.7982	60.8151	82.7711	60.6713	74.7692	61.1748	79.6962	60.5634	88.6153
1.8482	62.1919	82.6700	61.2678	76.4785	61.4527	80.6370	61.6929	89.8410
1.8981	64.3266	82.3965	61.9350	78.6193	61.8781	81.2956	63.0169	91.5074
1.9481	67.0926	81.9566	62.6509	80.9241	62.5145	81.9176	64.4821	93.5283
1.9980	70.2697	81.4185	63.2567	82.9769	63.3566	82.4175	65.7941	95.2646
2.0480	73.4822	80.8550	63.5494	84.6643	64.3072	82.9235	66.6214	95.9693
2.0979	76.4265	80.5174	63.4825	85.9090	65.4335	83.3705	66.9020	95.5384
2.1479	78.7850	80.4818	63.3201	86.5604	66.6708	83.8325	66.5849	94.2284
2.1978	80.3076	80.6593	63.2527	86.4395	67.8681	83.9999	65.7802	92.1977
2.2478	81.1456	80.8534	63.1857	85.7311	68.8951	83.8205	64.5793	89.8895
2.2977	81.5454	80.6493	63.4165	84.7851	69.6892	83.3606	63.2557	87.4964
2.3477	81.5356	79.8922	64.0218	84.0242	70.2432	82.6156	61.8149	85.2215
2.3976	81.1348	78.7612	65.0469	83.4125	70.5853	81.4944	60.4195	82.9090

Table H1: Velocity Spectra

Freq. (Hz)	75-9-w	69-9-w	60-9-w	51-9-w	45-9-w	36-9-w	27-9-w	18-9-w
2.4476	80.4526	77.4421	66.6971	82.7534	70.9314	79.9876	59.2319	80.6239
2.4975	79.6952	76.1488	68.9310	82.1428	71.2037	78.1218	58.4665	78.2966
2.5475	78.9470	75.2022	71.3810	81.6474	71.2791	76.1448	58.0830	76.0938
2.5974	78.4415	74.6233	73.9220	81.4025	71.0389	74.2337	57.9999	74.3376
2.6474	78.6013	74.2066	76.3245	81.3811	70.5532	72.5652	58.2693	73.0947
2.6973	79.5973	73.9330	78.0868	81.6203	69.7792	71.1278	58.8281	72.3955
2.7473	80.9355	73.9298	79.0123	82.3091	68.7924	70.0562	59.2867	72.2540
2.7972	82.2657	74.2657	79.1048	83.4405	67.6922	69.5943	59.3286	72.3356
2.8472	83.1952	74.8529	78.3265	84.6757	66.5391	69.7849	58.8801	72.4897
2.8971	83.3206	75.1218	76.6283	85.5803	65.6483	70.6023	57.8261	72.4275
2.9471	82.5483	74.9153	74.2080	86.1143	65.0720	72.0271	56.1423	71.8798
2.9970	81.0389	74.2057	71.2687	86.3136	64.6453	73.7562	53.9160	70.9989
3.0470	78.9782	73.0061	67.9786	86.2301	63.9565	75.5656	51.4029	70.0505
3.0969	76.4625	71.5694	64.6633	85.7222	63.1458	77.1438	48.9620	69.2777
3.1469	73.7633	70.0500	61.5219	84.6516	62.3401	78.1375	46.8573	68.6968
3.1968	71.3206	68.4755	58.7252	83.0529	61.4745	78.4495	45.1708	68.4435
3.2468	69.6114	67.2412	56.4294	80.9103	60.6502	77.9557	44.0266	68.7997
3.2967	68.6373	66.6593	54.6923	78.3955	59.7362	76.7472	43.6483	69.6263
3.3467	68.2392	66.8671	53.4803	75.5016	58.7346	74.9661	44.0091	70.7827
3.3966	68.5094	67.7282	52.7832	72.4495	57.6403	72.8571	44.9031	72.0759
3.4466	69.7937	69.1733	52.7674	69.5869	56.4553	70.6898	46.2878	73.5504
3.4965	71.9230	71.0489	53.3566	67.0279	54.9999	68.7412	48.0069	74.9300
3.5465	74.6538	73.1998	54.1905	64.9364	53.2330	67.2416	49.8283	76.0724
3.5964	77.6822	75.5244	55.0249	63.4045	51.2847	66.2457	51.3926	77.1428
3.6464	80.7313	77.9236	55.7899	62.6452	49.2264	65.7446	52.6176	78.2153
3.6963	83.5364	80.1727	56.3686	62.7262	47.3126	65.9050	53.3376	78.9899
3.7463	85.6030	81.7068	56.6815	63.4249	45.6299	66.7216	53.5721	79.1593
3.7962	86.7432	82.4155	56.7912	64.4974	44.4155	68.0279	53.4125	78.6952
3.8462	87.0395	82.3856	56.5007	65.8469	43.8082	69.5393	52.8853	77.7317
3.8961	86.6882	81.7791	55.7922	67.3246	43.8311	71.1038	52.0519	76.4804
3.9461	86.2617	80.8556	54.9297	68.7805	44.3147	72.4109	50.9442	75.2521
3.9960	85.9140	79.8401	54.2257	70.0099	45.0749	73.1268	49.7102	74.2457
4.0460	85.8157	78.9375	53.8118	70.7241	46.0435	72.9494	48.5925	73.5563
4.0959	85.8501	78.3136	53.7382	70.7362	47.2257	71.8421	47.7172	73.0709
4.1459	86.0274	78.1088	54.0211	70.0657	48.3412	70.0657	47.0560	72.6362
4.1958	86.4335	78.2517	54.6293	68.7272	49.1748	67.7202	46.5314	72.1258
4.2458	86.7842	78.7171	55.4926	66.8289	49.5485	65.2579	46.1518	71.5842
4.2957	86.8591	79.2986	56.1878	64.6503	49.3146	63.1038	45.7492	70.6213
4.3457	86.5663	79.8305	56.5810	62.4912	48.5849	61.4917	45.1084	69.1401
4.3956	85.9779	80.0878	56.4835	60.5274	47.5164	60.4395	44.2197	67.4725
4.4456	85.1777	80.0653	55.9701	59.0376	46.3232	59.9711	43.1579	65.7504
4.4955	83.8411	79.8850	54.8451	57.9470	45.0449	60.0149	42.1993	64.0159
4.5455	81.8190	79.6372	53.0914	57.1369	43.8504	60.5461	41.3231	62.5461
4.5954	79.2247	79.2707	50.8251	56.7532	42.8199	61.4405	40.5866	61.4865
4.6454	76.3239	78.6002	48.3586	56.6739	42.0966	62.4342	39.9737	60.8547
4.6953	73.2467	77.6133	45.7463	56.7662	41.7929	63.3866	39.4217	60.3816
4.7453	70.2304	76.4468	43.2107	56.9911	41.9579	64.1565	39.0491	60.2653
4.7952	67.3726	75.3326	40.9031	57.4944	42.4567	64.3516	39.1240	60.4675
4.8452	64.8288	74.4707	38.9603	58.1909	43.1610	63.9566	39.7113	61.0011

Table H1: Velocity Spectra

Freq. (Hz)	75-9-w	69-9-w	60-9-w	51-9-w	45-9-w	36-9-w	27-9-w	18-9-w
4.8951	62.8041	73.6713	37.6580	59.0349	43.9042	63.0489	40.6832	61.6293
4.9451	61.3192	72.9897	37.1723	59.9346	44.6394	61.8632	41.9443	62.2094
4.9950	60.1898	72.4275	37.3476	60.9890	45.3846	60.5894	43.3866	62.7372
5.0450	59.2283	71.8913	37.9939	62.1544	46.0911	59.4806	44.9005	63.3148
5.0949	58.2347	71.0739	38.9658	63.3296	46.6540	58.8461	46.4196	63.6863
5.1449	57.1598	69.9192	40.1354	64.4141	47.0090	58.6519	47.7498	63.7453
5.1948	56.1558	68.4675	41.4909	65.2986	47.1428	58.8571	48.8311	63.4805
5.2448	55.2277	66.7663	42.9234	66.1369	47.0249	59.3187	49.7312	62.9376
5.2947	54.5884	64.9660	44.3590	66.9780	46.7098	59.9360	50.3897	62.0539
5.3447	54.2487	63.1209	45.7827	67.6639	46.2477	60.5020	50.7265	60.8761
5.3946	54.1618	61.2287	47.1003	67.9720	45.5952	60.9050	50.6283	59.5564
5.4446	54.3208	59.2917	48.2337	68.0031	44.7709	60.9795	50.1665	58.0939
5.4945	54.5439	57.5824	49.0494	67.5274	43.7857	60.7142	49.3351	56.5934
5.5445	54.7519	56.2212	49.5013	66.6449	42.6816	60.2133	47.8823	55.0846
5.5944	55.0545	55.3342	49.6391	65.5664	41.4377	59.5244	45.8629	53.6951
5.6444	55.5240	54.8523	49.4562	64.4026	40.1430	58.7018	43.4619	52.6397
5.6943	56.1458	54.6710	48.8229	63.2637	38.9148	57.8541	40.8851	51.8124
5.7443	56.8284	54.6972	47.7696	62.2682	37.8320	57.0466	38.3719	51.3138
5.7942	57.4843	54.8769	46.4637	61.1288	36.8395	56.3949	36.1500	51.0643
5.8442	57.8634	55.0348	45.1523	59.9031	35.9301	56.0576	34.1652	51.1251
5.8941	57.8919	55.1688	44.0466	58.5991	35.0758	56.0529	32.4234	51.5616
5.9441	57.6162	55.2445	43.2196	57.4973	34.1726	56.4749	30.9331	52.3556
5.9940	56.9790	55.1328	42.6953	56.5234	33.1408	57.1288	29.7422	53.4125
6.0440	56.1004	54.5955	42.4289	55.5262	32.0695	57.9317	28.9266	54.6922
6.0939	54.9792	53.6812	42.4379	54.4246	31.0180	58.6599	28.6048	55.9054
6.1439	53.8513	52.4382	42.7308	53.1877	30.0744	59.1658	28.7166	56.9171
6.1938	52.8641	51.0679	43.2761	51.8111	29.2223	59.4791	29.3214	57.7758
6.2438	52.0608	49.8567	43.9189	50.3625	28.4592	59.5409	30.2887	58.5856
6.2937	51.4636	48.9587	44.5090	48.8076	27.7678	59.3055	31.3300	59.3685
6.3437	51.1175	48.2375	45.0022	47.1654	27.1510	58.7744	32.3465	60.1192
6.3936	51.0849	47.7474	45.2923	45.5352	26.6166	57.9260	33.2403	60.7967
6.4436	51.2846	47.5216	45.2921	44.0871	26.2448	56.7359	34.0866	61.3302
6.4935	51.5779	47.6038	44.9026	42.7013	26.1039	55.3311	34.8896	61.5519
6.5435	51.9488	47.8526	44.0836	41.4334	26.1805	53.8530	35.5639	61.4369
6.5934	52.2725	48.1912	42.9098	40.3252	26.4263	52.3186	36.0461	60.9098
6.6434	52.4829	48.3706	41.5213	39.2891	26.9124	50.8353	36.3460	60.0696
6.6933	52.4420	48.1650	40.0259	38.2723	27.6969	49.4635	36.5387	58.8073
6.7433	52.1594	47.6751	38.5177	37.2095	28.5983	48.2955	36.7308	57.0483
6.7932	51.6147	47.0497	37.1316	36.1330	29.4621	47.4709	36.9346	54.7940
6.8432	50.8860	46.4585	35.9542	35.1193	30.2059	46.9101	37.0970	52.1657
6.8931	50.0991	46.0597	34.9618	34.2173	30.7846	46.4733	37.2158	49.3822
6.9431	49.3585	45.8453	34.1184	33.4310	31.2926	46.1161	37.2220	46.6160
6.9930	48.7832	45.7132	33.4825	32.7272	31.7552	45.7762	37.0000	44.0000
7.0430	48.4347	45.7443	33.0528	32.0668	32.1936	45.3428	36.5461	41.6875
7.0929	48.1963	45.9407	32.7905	31.4286	32.5777	44.6498	35.9184	39.7983
7.1429	47.9574	46.2574	32.5931	30.8216	32.7645	43.6788	35.0931	38.4502
7.1928	47.6163	46.6597	32.4755	30.3320	32.6985	42.5454	34.0867	37.6831
7.2428	47.1434	47.0492	32.3463	30.2532	32.4188	41.2767	32.8678	37.5322
7.2927	46.5128	47.3296	32.2629	30.6804	31.9566	39.9859	31.4461	37.9512

Table H1: Velocity Spectra

Freq. (Hz)	75-9-w	69-9-w	60-9-w	51-9-w	45-9-w	36-9-w	27-9-w	18-9-w
7.3427	45.7303	47.2870	32.3373	31.5589	31.3607	38.7695	29.9142	38.6813
7.3926	44.8361	46.8617	32.4831	32.7862	30.6571	37.6505	28.3432	39.5874
7.4426	43.8890	46.0325	32.6060	34.2732	29.8299	36.6771	26.8008	40.6664
7.4925	42.9470	44.9250	32.6523	35.7842	28.8611	35.9116	25.3097	41.7932
7.5425	42.0645	43.6409	32.6439	37.1619	27.7715	35.3819	23.7815	42.9017
7.5924	41.1964	42.2821	32.5942	38.2885	26.6645	35.0010	22.3065	43.8993
7.6424	40.3977	40.9556	32.4496	39.0679	25.6479	34.7958	21.1083	44.6698
7.6923	39.6615	39.7692	32.1846	39.4000	24.8538	34.8153	20.2538	45.0769
7.7423	38.9593	38.8586	31.8131	39.2922	24.2876	35.0107	19.6964	44.9286
7.7922	38.2285	38.2987	31.3558	38.7740	23.9454	35.2909	19.4415	44.2909
7.8422	37.5014	38.1523	30.8826	37.8857	23.8481	35.5565	19.5349	43.2654
7.8921	36.7772	38.2057	30.3925	36.7140	24.0867	35.6881	20.0065	41.9149
7.9421	36.0651	38.2253	29.9099	35.4377	24.6443	35.6521	20.8083	40.3141
7.9920	35.3486	38.1618	29.4985	34.2537	25.4146	35.4365	21.8581	38.5534
8.0420	34.6530	38.0547	29.2246	33.1652	26.2732	35.0792	23.1127	36.7841
8.0919	33.9536	37.8701	29.0661	32.2381	27.1240	34.6333	24.4942	35.1998
8.1419	33.3004	37.5504	29.0014	31.5661	27.8046	34.1471	25.8831	33.8377
8.1918	32.7754	37.1908	29.0563	31.2108	28.2617	33.6355	27.1886	32.7836
8.2418	32.4150	36.7090	29.2089	31.1952	28.4754	33.1156	28.2859	32.1842
8.2917	32.2050	36.1601	29.4107	31.3343	28.4405	32.6113	29.1370	32.0640
8.3417	32.1322	35.6357	29.5964	31.4315	28.1616	32.1906	29.6631	32.2657
8.3916	32.1650	35.1944	29.5468	31.4685	27.6671	31.7706	29.8825	32.7608
8.4416	32.2131	34.9313	29.2248	31.4450	27.0047	31.3352	29.7820	33.4878
8.4915	32.2252	34.9510	28.6843	31.3251	26.2387	30.8836	29.3891	34.2377
8.5415	32.1075	35.2849	27.9905	31.1252	25.4451	30.4163	28.8019	34.8066
8.5914	31.8054	35.9464	27.1918	30.8947	24.7175	29.8723	28.0681	35.1474
8.6414	31.4201	36.7951	26.3217	30.7029	24.1009	29.2511	27.2723	35.2051
8.6913	30.9671	37.6768	25.4221	30.5238	23.6143	28.5596	26.3694	35.0520
8.7413	30.5159	38.6278	24.4669	30.3848	23.2519	27.7361	25.4110	34.6942
8.7912	30.2066	39.5164	23.4549	30.2241	22.9890	26.8220	24.4835	34.2066
8.8412	30.1308	40.3512	22.4301	30.0070	22.7838	25.9489	23.6944	33.6142
8.8911	30.3098	41.0413	21.4364	29.7318	22.6101	25.1351	22.9835	32.8882
8.9411	30.7753	41.5582	20.5735	29.3626	22.4064	24.4360	22.3349	32.0538
8.9910	31.5045	41.7992	19.8341	28.8611	22.1898	23.9161	21.7223	31.1448
9.0410	32.4934	41.7061	19.2483	28.1898	21.9696	23.6151	21.1469	30.2874
9.0909	33.7000	41.2181	18.8363	27.3818	21.7363	23.5000	20.6273	29.5818
9.1409	34.9091	40.3662	18.6383	26.5360	21.5085	23.4738	20.1465	29.0498
9.1908	35.9360	39.2539	18.7033	25.6607	21.3135	23.4641	19.7143	28.7396
9.2408	36.6675	37.8780	19.0268	24.7561	21.1799	23.3977	19.3502	28.6927
9.2907	37.1349	36.3545	19.5848	23.9607	21.1085	23.1989	19.0552	28.8476
9.3407	37.4002	34.8128	20.3067	23.3050	21.1100	22.8380	18.8122	29.1150
9.3906	37.4591	33.2803	21.0913	22.8473	21.0913	22.2933	18.6591	29.4489
9.4406	37.3281	31.8809	21.8361	22.6574	21.0148	21.5907	18.5980	29.7568
9.4905	36.9560	30.6923	22.4640	22.7677	20.8316	20.7937	18.6299	29.9520
9.5405	36.3302	29.7473	22.9258	23.1166	20.5502	19.9778	18.7662	30.0621
9.5904	35.5228	29.0206	23.1896	23.5732	20.2166	19.2383	18.9986	30.0947
9.6404	34.6765	28.4488	23.2141	24.0432	19.8592	18.6253	19.3097	30.0780
9.6903	33.8191	27.9662	23.0048	24.4680	19.4581	18.1693	19.6713	30.0593
9.7403	33.0294	27.6138	22.5878	24.7793	19.0325	17.8929	20.0748	30.0099

Table H1: Velocity Spectra

Freq. (Hz)	75-9-w	69-9-w	60-9-w	51-9-w	45-9-w	36-9-w	27-9-w	18-9-w
9.7902	32.3077	27.2853	22.0084	24.9552	18.6210	17.8867	20.4713	29.8503
9.8402	31.6264	26.9326	21.3139	24.9843	18.1748	18.2339	20.8612	29.5895
9.8901	31.0055	26.5648	20.5714	24.7945	17.6934	18.8011	21.2242	29.2549
9.9401	30.4167	26.1226	19.8901	24.3632	17.1864	19.5124	21.5004	28.8859
9.9900	29.8601	25.5145	19.3207	23.6863	16.6433	20.3396	21.6583	28.5215
10.0400	29.4674	24.8088	18.8852	22.8310	16.0941	21.2748	21.7065	28.2626
10.0899	29.2607	24.0846	18.6260	21.8850	15.6293	22.2684	21.6933	28.2618
10.1399	29.2029	23.4536	18.5662	20.9896	15.3214	23.3116	21.5878	28.6249
10.1898	29.2957	22.9576	18.6270	20.2268	15.1726	24.3332	21.3782	29.3466
10.2398	29.5930	22.6812	18.7388	19.6707	15.1651	25.2821	21.0735	30.3200
10.2897	30.0871	22.5962	18.8302	19.3446	15.2699	26.1667	20.7029	31.4453
10.3397	30.6572	22.7267	18.8906	19.2525	15.4682	26.9039	20.2555	32.5494
10.3896	31.2000	22.9922	18.9610	19.2935	15.7402	27.4493	19.7402	33.4857
10.4396	31.6842	23.3951	19.0314	19.4072	16.0352	27.7380	19.2402	34.1688
10.4895	32.0664	23.9370	19.1538	19.6049	16.3426	27.7237	18.7657	34.5314
10.5395	32.3036	24.5149	19.2662	19.8459	16.6524	27.4554	18.3493	34.5169
10.5894	32.3400	25.0439	19.3257	20.2046	16.9325	27.0136	18.0337	34.0661
10.6394	32.1523	25.4707	19.2680	20.6617	17.1720	26.4389	17.7891	33.3120
10.6893	31.6724	25.7505	19.1552	21.1969	17.3060	25.8040	17.5946	32.2817
10.7393	30.8862	25.9139	19.0086	21.7471	17.3010	25.2051	17.4299	31.0366
10.7892	29.8213	25.9372	18.8379	22.2905	17.1872	24.7073	17.2519	29.6056
10.8392	28.5396	25.8190	18.7193	22.7732	16.9850	24.3448	17.0609	28.0952
10.8891	27.1792	25.6221	18.6748	23.1393	16.6930	23.9778	16.8454	26.6021
10.9391	25.8491	25.4553	18.7606	23.3987	16.3649	23.6285	16.5946	25.2365
10.9890	24.6373	25.3296	18.9011	23.5824	16.0330	23.2637	16.2747	24.0659
11.0390	23.7339	25.2903	19.0754	23.7118	15.7306	22.8728	15.9072	23.2040
11.0889	23.1204	25.3049	19.2947	23.7968	15.5023	22.3441	15.4912	22.6990
11.1389	22.7011	25.3521	19.5154	23.7704	15.3383	21.6652	15.0487	22.4337
11.1888	22.4447	25.3762	19.6811	23.6084	15.1720	20.8000	14.6126	22.2321
11.2388	22.3315	25.3772	19.8140	23.2418	14.9813	19.7578	14.2620	22.0393
11.2887	22.2952	25.2641	19.8907	22.6677	14.7769	18.6038	14.0206	21.9114
11.3387	22.3486	24.9905	19.9108	21.8950	14.5702	17.4049	14.0033	21.8837
11.3886	22.4697	24.5538	19.8617	21.0006	14.3382	16.1946	14.2358	21.9914
11.4386	22.6027	23.9524	19.6973	20.0862	14.0809	15.0418	14.7787	22.2824
11.4885	22.6209	23.2183	19.4156	19.1973	13.7862	14.0504	15.5439	22.7932
11.5385	22.5001	22.4308	19.0731	18.3808	13.5116	13.3039	16.3962	23.5155
11.5884	22.2613	21.6935	18.7037	17.7187	13.2224	12.8168	17.2551	24.3820
11.6384	21.9500	21.0888	18.3887	17.2248	12.9652	12.6277	18.0279	25.3368
11.6883	21.6117	20.6766	18.1286	16.8428	12.7519	12.7519	18.6545	26.2519
11.7383	21.2581	20.5655	17.9596	16.6449	12.5835	13.1352	19.1100	27.0216
11.7882	20.9594	20.7826	17.8355	16.6332	12.4719	13.7097	19.3444	27.6551
11.8382	20.7642	21.3561	17.7691	16.7511	12.4301	14.3242	19.3436	28.1276
11.8881	20.6140	22.1951	17.7370	16.9643	12.3874	14.8958	19.1280	28.4482
11.9381	20.4977	23.2315	17.6923	17.2625	12.3798	15.3882	18.7189	28.5917
11.9880	20.4276	24.2757	17.5864	17.6224	12.4196	15.7762	18.1259	28.5554
12.0380	20.4164	25.1594	17.4069	17.9848	12.4954	16.0948	17.4310	28.3856
12.0879	20.4527	25.7714	17.1286	18.3011	12.5956	16.3066	16.6934	28.0923
12.1379	20.5373	26.0479	16.7746	18.5467	12.7205	16.4347	15.9613	27.6865
12.1878	20.7680	26.0210	16.4048	18.7083	12.9313	16.4535	15.2835	27.1910

Table H1: Velocity Spectra

Freq. (Hz)	75-9-w	69-9-w	60-9-w	51-9-w	45-9-w	36-9-w	27-9-w	18-9-w
12.2378	21.1224	25.7361	16.0438	18.7483	13.2535	16.3864	14.6976	26.6050
12.2877	21.6509	25.2389	15.6914	18.6650	13.7008	16.2689	14.2414	26.0253
12.3377	22.2942	24.5273	15.4221	18.4449	14.2747	16.1007	13.9663	25.4650
12.3876	23.0533	23.7099	15.2987	18.1354	14.9023	15.8933	13.8246	24.9239
12.4376	23.9051	22.9101	15.3356	17.7485	15.5470	15.6589	13.7809	24.4648
12.4875	24.8252	22.2402	15.5594	17.2702	16.1339	15.4346	13.7238	24.1009

Table H1: Velocity Spectra

Freq. (Hz)	75-6-w	69-6-w	60-6-w	51-6-w	45-6-w	36-6-w	27-6-w	18-6-w
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0500	2.9545	4.4040	2.7265	3.2200	2.8640	3.8995	2.7215	1.8515
0.0999	5.9031	8.7313	5.4116	6.4216	5.6933	7.7782	5.4595	3.8172
0.1499	8.8591	12.9034	8.0496	9.5981	8.4918	11.6128	8.2460	5.9705
0.1998	11.8102	16.8092	10.6473	12.6973	11.2368	15.3786	11.0869	8.2977
0.2498	14.7807	20.4137	13.2619	15.7149	13.8614	19.1122	13.9813	10.7739
0.2997	17.7572	23.6373	15.8841	18.6653	16.3187	22.8252	16.8521	13.3187
0.3497	20.7582	26.5143	18.5201	21.6289	18.5796	26.5352	19.6147	15.9079
0.3996	23.8002	29.1149	21.1468	24.5954	20.6313	30.2098	22.2098	18.4855
0.4496	26.9220	31.5799	23.7164	27.5920	22.4755	33.8594	24.5841	20.9963
0.4995	30.1548	34.0509	26.1888	30.6493	24.2008	37.4975	26.7482	23.3566
0.5495	33.4646	36.6462	28.6180	33.8217	25.8815	41.1740	28.7993	25.5463
0.5994	36.6293	39.0090	31.1089	37.2287	27.5484	44.9070	30.8451	27.5484
0.6494	39.4511	40.9382	33.6844	41.0031	29.2555	48.7570	32.9700	29.4568
0.6993	41.7762	42.4335	36.2377	45.2867	31.1468	52.7342	35.2098	31.3077
0.7493	43.6617	43.5793	38.6864	50.1207	33.4413	56.7595	37.5774	33.0366
0.7992	45.1388	44.4515	40.9830	55.2407	36.3077	60.6353	40.1358	34.6853
0.8492	46.2559	45.2029	43.1054	60.5140	39.7765	64.2080	42.8167	36.3882
0.8991	47.2387	45.8541	44.8471	65.8231	43.9570	67.3786	45.4855	38.2207
0.9491	48.2997	46.5249	46.1358	71.0781	48.7742	70.1575	48.1384	40.2229
0.9990	49.4905	47.2727	47.0129	76.1638	53.8561	72.8471	50.6893	42.2877
1.0490	50.9290	48.0652	47.4987	80.9723	58.9643	75.6014	53.1423	44.1000
1.0989	52.6153	48.6483	47.6923	85.3955	63.8791	78.4724	55.4725	45.4175
1.1489	54.1477	49.0121	47.8402	89.4763	68.5204	81.6408	57.8931	46.1628
1.1988	55.3486	49.1508	48.0479	93.1108	72.7072	85.2227	60.3116	46.2617
1.2488	56.3583	49.0529	48.4160	96.4074	76.2268	89.2517	62.6648	45.8559
1.2987	57.1428	48.7013	48.8571	99.3895	79.0259	93.7012	64.9610	45.1818
1.3487	57.8862	48.1891	49.4433	102.4203	81.2457	98.4012	67.3406	44.4936
1.3986	58.5454	47.6083	50.0979	105.4964	83.0489	103.2167	69.8461	43.9300
1.4486	58.9870	47.0360	50.9473	108.7609	84.7576	107.9062	72.3865	43.6463
1.4985	59.1458	46.4685	52.2827	112.1777	86.6433	112.0878	74.8651	43.8161
1.5485	59.0288	45.8511	54.2285	115.6265	88.8529	115.4097	77.1618	44.4574
1.5984	58.5014	45.1548	56.6473	118.9689	91.5404	117.5783	78.8011	45.6183
1.6484	57.7270	44.3749	59.1281	122.0146	94.6676	118.5859	79.6177	47.2926
1.6983	56.8081	43.5614	61.5634	124.4514	98.0598	118.4904	79.6842	49.3356
1.7483	55.8582	42.7809	63.9703	126.0349	101.5587	117.4333	79.0756	51.5399
1.7982	54.9350	41.9160	66.4255	126.6292	104.6193	115.9300	77.8441	53.7482
1.8482	54.0414	41.0485	68.9194	126.5093	106.8075	114.4221	76.2567	56.0374
1.8981	53.2037	40.2018	71.2926	125.8061	107.8500	113.2027	74.7092	58.2337
1.9481	52.3454	39.6049	73.5408	124.5226	107.5156	112.4054	73.3654	60.1963
1.9980	51.2287	39.3007	75.6243	122.8171	105.4544	112.3675	72.2077	61.7582
2.0480	49.9917	39.4035	77.4144	120.9139	101.7856	113.0496	71.5571	63.0784
2.0979	48.7972	39.7972	78.9440	118.9719	97.1118	114.2307	71.8321	64.2377
2.1479	47.6834	40.4450	80.3529	117.3398	91.9946	115.8362	73.4582	65.2962
2.1978	46.8131	41.3186	81.5164	116.2197	86.8571	118.1098	75.9340	66.3516
2.2478	46.4845	42.2811	82.2695	115.9640	82.1121	121.4711	79.0776	67.4340
2.2977	46.6663	43.2197	82.4874	116.8840	78.2367	126.0978	82.7632	68.6553
2.3477	47.3766	44.2072	82.2869	119.0988	76.0655	131.6590	86.7710	69.9849
2.3976	48.3836	45.1708	81.7342	122.3495	75.9080	137.5743	90.7971	71.4245

Table H1: Velocity Spectra

Freq. (Hz)	75-6-w	69-6-w	60-6-w	51-6-w	45-6-w	36-6-w	27-6-w	18-6-w
2.4476	49.6129	46.0638	80.8932	126.1248	77.5155	143.0622	94.2081	72.9140
2.4975	51.1988	46.8531	80.0449	129.6952	80.6942	147.5024	96.6533	74.2757
2.5475	53.0390	47.4854	79.2782	132.5719	84.9082	150.5827	98.1297	75.3551
2.5974	54.8831	48.0519	78.3636	134.7531	89.7661	152.4414	98.6233	76.0259
2.6474	56.6808	48.5268	77.2776	136.3940	94.4328	153.0991	98.2185	76.2716
2.6973	58.2077	48.8211	76.1718	137.5084	98.3705	152.3975	97.0758	76.2257
2.7473	59.4241	48.8195	75.3310	138.4914	101.6501	150.5795	95.4137	76.0727
2.7972	60.3915	48.5034	74.6852	139.7761	104.0279	147.6362	93.4824	75.7761
2.8472	61.1009	47.8899	74.1126	141.2781	105.4888	143.6412	91.7653	75.3084
2.8971	61.3606	47.1648	73.5284	142.8850	105.9759	138.8870	90.5344	74.6003
2.9471	61.2407	46.5642	72.9997	144.4668	105.6241	134.1225	89.6803	73.4712
2.9970	60.9290	46.1238	72.5873	145.7741	104.7152	129.9200	89.4305	71.9580
3.0470	60.6962	45.9488	72.4272	146.5607	103.5066	126.4505	90.1607	70.3552
3.0969	60.5754	45.9890	72.4365	146.5763	102.4455	123.5353	91.8541	68.9060
3.1469	60.6093	46.1965	72.5675	145.7329	101.7393	121.4703	94.2497	67.7213
3.1968	60.6753	46.5774	72.8231	143.9839	101.3705	120.4874	96.6073	67.0689
3.2468	60.7476	47.0786	73.1829	141.3981	101.4950	120.6511	98.5728	67.1763
3.2967	60.6593	47.6043	73.5494	138.0658	102.2636	121.0219	99.9559	68.0439
3.3467	60.2741	48.2259	73.8617	134.3031	103.8816	120.9497	100.8026	69.5444
3.3966	59.4745	48.8431	74.0119	130.2936	105.9400	120.4095	100.9809	71.3965
3.4466	58.1441	49.4242	73.8262	126.4558	108.2232	119.4247	100.4684	73.3781
3.4965	56.4685	50.0000	73.1817	122.8320	110.9439	118.2516	99.1957	75.2796
3.5465	54.5806	50.5376	72.1358	119.8008	113.8781	117.1764	97.4224	76.8527
3.5964	52.7232	51.0329	70.4175	117.7102	116.5953	116.6672	95.4125	77.9700
3.6464	51.0131	51.3778	68.1877	116.7577	118.8726	116.7213	93.2020	78.6528
3.6963	49.4935	51.4155	65.7572	116.5813	120.6472	117.2466	90.8920	78.9530
3.7463	48.2523	51.1745	63.4249	117.2592	121.7922	118.4205	88.6000	78.7847
3.7962	47.4525	50.7932	61.1947	118.7451	121.9339	120.3016	86.3256	77.8601
3.8462	47.0390	50.3468	59.3469	120.6168	120.9630	122.8861	84.0395	76.3086
3.8961	47.0649	49.8311	58.2467	122.1038	118.7531	125.9999	81.7402	74.4155
3.9461	47.5505	49.3657	57.8498	122.6842	115.4234	128.9980	79.3166	72.7266
3.9960	48.6313	48.7912	58.1018	121.8380	110.9689	131.3485	76.9230	71.5684
4.0460	50.2109	48.0665	58.7075	119.7616	105.6411	132.5874	74.5678	71.1691
4.0959	51.9770	47.1438	59.5134	116.8970	99.6942	132.5433	72.2107	71.6373
4.1459	53.7309	46.0609	60.4058	113.7635	93.4486	131.4665	70.0243	72.6362
4.1958	55.3426	45.0209	61.3006	110.6013	87.5244	129.4404	68.0559	73.7202
4.2458	56.7663	44.1563	61.9887	107.7584	82.4959	126.4824	66.4468	74.6412
4.2957	57.8631	43.5584	62.2017	105.2447	78.8691	122.6852	65.5524	75.1318
4.3457	58.5800	43.5005	61.8393	103.1669	76.7451	118.2900	65.3593	75.1372
4.3956	58.7252	44.1318	60.9230	101.5823	76.0878	113.8021	65.6703	74.7692
4.4456	58.4152	45.3451	59.5710	100.2927	76.6866	109.3618	66.4617	74.1971
4.4955	57.5874	46.9330	57.9020	99.1258	78.3566	105.4644	67.3875	73.4115
4.5455	56.3642	48.6823	56.0915	97.8192	80.7735	102.5465	68.3643	72.5007
4.5954	54.6853	50.2737	54.3636	96.5034	83.5444	100.5474	69.4824	71.6423
4.6454	52.4930	51.4246	52.9576	95.4165	86.4509	99.5509	70.9353	71.1211
4.6953	50.0519	51.9770	51.9770	94.5164	89.0698	99.5404	72.5424	70.9929
4.7453	47.5479	51.9610	51.3441	93.7197	91.0149	100.4580	74.0267	71.0846
4.7952	45.3290	51.4525	50.9250	93.3625	91.9719	102.0898	75.5244	71.2087
4.8452	43.4905	50.5354	50.6808	93.4639	91.9619	104.1233	77.0871	71.4182

Table H1: Velocity Spectra

Freq. (Hz)	75-6-w	69-6-w	60-6-w	51-6-w	45-6-w	36-6-w	27-6-w	18-6-w
4.8951	42.3181	49.4405	50.3706	93.9370	90.9020	106.1258	78.5174	71.7132
4.9451	41.9344	48.1603	49.9455	94.9459	88.9129	107.5065	79.5667	72.0501
4.9950	42.2427	46.7432	49.2807	96.4035	86.2637	108.2417	80.1698	72.4775
5.0450	43.1549	45.3192	48.4825	98.6298	83.1416	108.2657	80.3669	72.7489
5.0949	44.5906	43.9639	47.5048	101.4395	79.7861	107.6552	80.2956	72.8571
5.1449	46.4019	42.6975	46.2629	104.5958	76.6076	106.6023	79.9517	72.5945
5.1948	48.4415	41.7194	44.8311	107.4804	73.9740	105.2466	79.0129	71.9480
5.2448	50.5494	41.1455	43.2644	109.8261	71.7489	103.7421	77.5706	71.1195
5.2947	52.5393	40.9333	41.7434	111.3475	69.9430	102.1348	75.6613	70.3136
5.3447	54.2487	40.9992	40.3792	111.8646	68.3587	100.2666	73.1689	69.6414
5.3946	55.6723	41.1176	39.4507	111.6143	67.0549	98.2357	70.1837	69.0509
5.4446	56.6238	41.1775	39.1467	110.6343	66.0974	96.1516	67.2408	68.4386
5.4945	57.0329	41.1483	39.5549	109.0109	65.4395	94.2856	64.5054	67.8021
5.5445	57.1084	41.0293	40.5747	106.9534	64.9815	92.2605	62.2647	67.0330
5.5944	56.8391	40.8839	42.0643	104.5593	64.6713	89.9580	60.8111	66.1258
5.6444	56.2634	40.8034	43.8626	101.9379	64.3462	87.4318	60.1129	65.0799
5.6943	55.4966	40.8908	45.7025	99.0808	63.8900	84.9590	59.8471	63.9470
5.7443	54.6800	41.1349	47.3962	96.0447	63.3596	82.3733	59.6258	62.7852
5.7942	53.9092	41.4169	48.8045	93.0549	62.8671	79.8441	59.3906	61.5344
5.8442	53.2290	41.7743	49.8160	90.0591	62.3576	77.2603	59.1433	60.3706
5.8941	52.6225	42.0839	50.2118	87.4684	61.7112	74.6782	58.6699	59.3536
5.9441	51.8979	42.1021	49.9899	85.5356	61.0459	72.0425	58.0025	58.6920
5.9940	50.9790	41.8861	49.2407	84.2157	60.4195	69.4705	57.2907	58.2797
6.0440	49.8872	41.5646	48.1163	83.7094	59.7268	67.2697	56.8257	58.0768
6.0939	48.6720	41.1216	46.8743	83.7302	59.2266	65.5094	56.7403	58.0871
6.1439	47.3695	40.6296	45.6983	83.8642	59.1105	64.3881	56.8434	58.4408
6.1938	45.9332	40.1792	44.7874	84.0499	59.3428	63.8581	57.0139	59.0889
6.2438	44.3060	39.7293	44.2498	84.2289	60.0029	63.7492	57.2681	60.0654
6.2937	42.6650	39.1657	44.1251	84.2097	61.1559	63.9440	57.5936	61.1055
6.3437	41.1452	38.4936	44.3234	84.0540	62.7773	64.5154	57.8989	62.1175
6.3936	39.8321	37.7990	44.7872	83.5004	64.7032	65.5344	58.2073	62.8938
6.4436	38.7454	37.1151	45.2792	82.5425	66.6913	66.8846	58.6690	63.3535
6.4935	37.9480	36.4675	45.5779	81.0389	68.5714	68.3766	58.9999	63.5389
6.5435	37.4550	35.8911	45.4970	79.1109	70.1463	69.6883	59.0551	63.3476
6.5934	37.2000	35.3340	44.9472	76.9450	71.2087	70.8131	58.9450	62.7098
6.6434	37.0436	34.7317	43.9793	74.8711	71.4830	71.6159	58.6280	61.7238
6.6933	36.9470	33.9886	42.6631	72.9570	71.0828	72.1538	58.0912	60.3936
6.7433	36.8791	33.0287	40.9993	71.4115	69.9955	72.4230	57.4394	58.7881
6.7932	36.7240	31.8329	39.0541	70.1058	68.4755	72.3476	56.9949	57.0493
6.8432	36.4811	30.4865	37.0012	69.0479	66.6391	71.9905	56.8533	55.3341
6.8931	36.2301	29.1027	35.0307	68.0349	64.6021	71.4814	57.1369	53.8696
6.9431	36.0625	27.7724	33.3685	67.0495	62.5226	70.9585	57.7735	52.8231
6.9930	35.9930	26.6503	32.2168	65.6852	60.5664	70.4195	58.6433	52.2097
7.0430	36.0320	25.9323	31.6372	63.8730	58.8161	70.0074	59.5556	52.0830
7.0929	36.1383	25.5841	31.5634	61.6940	57.2964	69.8225	60.2613	52.3740
7.1429	36.2645	25.6144	31.7716	59.3289	55.9146	69.9004	60.4932	53.0432
7.1928	36.2877	26.0092	32.1446	56.9166	54.6653	70.0579	60.3260	53.8741
7.2428	36.1198	26.6970	32.5564	54.5673	53.7416	70.2986	59.8328	54.7338
7.2927	35.7853	27.5591	32.8317	52.3908	53.0252	70.7757	59.0563	55.5266

Table H1: Velocity Spectra

Freq. (Hz)	75-6-w	69-6-w	60-6-w	51-6-w	45-6-w	36-6-w	27-6-w	18-6-w
7.3427	35.2523	28.4970	32.8733	50.4150	52.5664	71.3857	58.2790	56.1643
7.3926	34.3830	29.4152	32.8231	48.6359	52.3692	71.7156	57.6179	56.5312
7.4426	33.1940	30.2095	32.7995	47.1489	52.4033	71.6127	57.1964	56.5861
7.4925	31.8356	30.8017	32.8172	46.1238	52.5824	71.1788	56.9430	56.2537
7.5425	30.3963	31.1354	32.8476	45.6548	52.8805	70.3112	56.8252	55.5581
7.5924	28.9574	31.1820	32.9890	45.5848	53.2986	69.0908	56.7836	54.4831
7.6424	27.5509	30.9899	33.3361	45.8620	53.9248	67.4900	56.6608	53.2140
7.6923	26.3231	30.5846	33.8154	46.2384	54.6769	65.5615	56.4307	51.9230
7.7423	25.3405	29.9937	34.3526	46.5312	55.4349	63.4094	56.0930	50.6888
7.7922	24.7247	29.3143	34.8311	46.7454	55.9012	61.1376	55.6753	49.7454
7.8422	24.5696	28.6162	35.1644	46.8493	55.8600	58.7381	55.0287	49.2098
7.8921	24.8128	27.9933	35.2935	46.7291	55.2684	56.2075	54.1635	49.0099
7.9421	25.3512	27.4717	35.1200	46.4851	54.1651	53.6648	53.0373	49.0266
7.9920	26.0459	27.0130	34.6134	46.1218	52.6353	51.3406	51.5084	49.0949
8.0420	26.7718	26.5949	33.7281	45.6946	50.8657	49.3135	49.6272	49.0964
8.0919	27.4234	26.1368	32.5375	45.3308	49.0612	47.7179	47.4347	48.8913
8.1419	27.9267	25.5981	31.1428	45.2690	47.3044	46.6124	45.1224	48.3873
8.1918	28.2945	25.0341	29.6543	45.5628	45.8249	46.0051	42.9660	47.4961
8.2418	28.5084	24.5194	28.2117	46.2612	44.5881	45.8739	41.1183	46.0964
8.2917	28.5483	24.1454	26.8817	47.3954	43.5231	46.0687	39.6509	44.3274
8.3417	28.4369	23.9574	25.8092	48.8573	42.6094	46.3465	38.7055	42.3925
8.3916	28.1538	23.9161	25.0993	50.6601	41.8405	46.5566	38.1902	40.4895
8.4416	27.8151	24.0164	24.7423	52.7431	41.4229	46.6989	38.0041	38.7554
8.4915	27.5379	24.2857	24.5489	54.8296	41.4640	46.7797	38.0589	37.2013
8.5415	27.3157	24.7533	24.5056	56.6558	41.9729	46.7391	38.2318	35.9341
8.5914	27.1316	25.3962	24.6917	57.9232	42.8969	46.4881	38.3692	34.9154
8.6414	27.0130	26.1316	25.0946	58.4418	44.1403	46.0327	38.4715	34.2372
8.6913	26.9691	26.9256	25.5263	58.1274	45.4903	45.4294	38.5459	33.9135
8.7413	26.9057	27.7536	25.9704	57.0370	46.6086	44.7817	38.6365	33.8463
8.7912	26.9187	28.5626	26.3384	55.2879	47.2703	44.1318	38.7868	34.0219
8.8412	27.0099	29.2821	26.6209	53.0295	47.4596	43.5783	38.9897	34.4011
8.8911	27.0912	29.7852	26.7889	50.3948	47.2473	43.2374	39.1119	34.7731
8.9411	27.1541	30.0153	26.8412	47.6561	46.6457	43.1497	39.0815	35.0759
8.9910	27.1888	29.9670	26.7123	45.0089	45.6113	43.2557	38.9220	35.2897
9.0410	27.2225	29.6274	26.3545	42.6374	44.2376	43.4782	38.6955	35.4317
9.0909	27.2000	29.0272	25.7909	40.7818	42.6727	43.7454	38.4909	35.5636
9.1409	27.0845	28.2088	25.1101	39.6075	40.9604	44.0226	38.3095	35.7044
9.1908	26.9566	27.3702	24.3464	39.0885	39.1988	44.2721	38.2245	35.7890
9.2408	26.7706	26.6320	23.5918	39.0147	37.4530	44.4575	38.0813	35.7804
9.2907	26.5157	26.0418	22.9387	39.3554	35.7413	44.5954	37.8131	35.6949
9.3407	26.2567	25.5562	22.3803	39.9969	34.1870	44.6485	37.3535	35.5694
9.3906	26.0589	25.1950	21.9458	40.6613	32.8765	44.6054	36.6797	35.3838
9.4406	25.9711	25.0081	21.6567	41.1705	31.9375	44.3708	35.7327	35.1946
9.4905	25.8996	25.0075	21.4201	41.4355	31.3471	43.9410	34.4980	34.9440
9.5405	25.8071	25.0438	21.2467	41.4916	30.9589	43.3997	33.0865	34.6320
9.5904	25.7023	25.0789	21.1564	41.3442	30.8044	42.8115	31.5908	34.3624
9.6404	25.5663	25.0072	21.0354	41.0392	30.8107	42.1768	30.1166	34.2331
9.6903	25.4370	24.8362	20.8438	40.6217	30.9217	41.5229	28.7027	34.2746
9.7403	25.4417	24.5163	20.5715	40.1203	31.1495	40.8703	27.5066	34.4709

Table H1: Velocity Spectra

Freq. (Hz)	75-6-w	69-6-w	60-6-w	51-6-w	45-6-w	36-6-w	27-6-w	18-6-w
9.7902	25.6112	23.9664	20.1776	39.5328	31.4265	40.1300	26.6489	34.8531
9.8402	25.9191	23.1245	19.7198	38.8885	31.7838	39.2329	26.1061	35.4149
9.8901	26.2681	22.0747	19.2362	38.2055	32.2417	38.1857	25.9318	36.1483
9.9401	26.6295	20.9040	18.7470	37.4841	32.7129	37.0368	26.1623	36.8977
9.9900	26.9630	19.7203	18.2917	36.7932	33.0669	35.8441	26.7532	37.5324
10.0400	27.2285	18.6041	17.8812	36.1038	33.2726	34.7284	27.6100	37.9412
10.0899	27.3335	17.6573	17.5867	35.4357	33.3774	33.8113	28.5645	38.0692
10.1399	27.1648	16.9134	17.4406	34.6987	33.3197	33.2589	29.5578	37.8827
10.1898	26.8094	16.4565	17.3838	33.9830	33.0965	33.1372	30.5694	37.3558
10.2398	26.2446	16.3120	17.3667	33.3101	32.7162	33.4432	31.5283	36.5766
10.2897	25.4773	16.3400	17.3484	32.7315	32.1759	34.1001	32.3302	35.7155
10.3397	24.6188	16.4505	17.2570	32.3426	31.5568	34.9585	32.9526	34.8448
10.3896	23.7714	16.5922	17.1221	32.2078	30.9091	35.9272	33.3714	34.0259
10.4396	22.9880	16.7660	16.9957	32.3732	30.3166	36.8413	33.6155	33.2501
10.4895	22.2692	16.8776	16.8986	32.9265	29.8216	37.5629	33.7552	32.3601
10.5395	21.7114	16.8843	16.8210	33.7580	29.4579	38.0054	33.8740	31.3866
10.5894	21.3376	16.7524	16.7630	34.7968	29.1420	38.0795	33.9708	30.4975
10.6394	21.1618	16.4804	16.6507	35.9080	28.7902	37.6528	34.0248	29.8010
10.6893	21.2183	16.0660	16.4508	36.9208	28.4228	36.7391	34.0454	29.3101
10.7393	21.4893	15.5505	16.1412	37.6735	28.0833	35.4290	34.1295	29.0068
10.7892	21.8589	14.9646	15.7738	38.0751	27.6204	33.8134	34.2881	28.7748
10.8392	22.2312	14.3403	15.4675	38.1323	27.0438	32.0515	34.5229	28.5830
10.8891	22.5078	13.7312	15.2992	37.9050	26.4061	30.3153	34.8016	28.4097
10.9391	22.6439	13.2473	15.3476	37.4774	25.7397	28.8245	35.0270	28.2557
10.9890	22.5494	12.9341	15.6593	36.9230	25.1099	27.6813	35.1538	28.0220
11.0390	22.1884	12.8936	16.2715	36.3404	24.5618	26.9793	35.1592	27.7520
11.0889	21.5679	13.1071	17.1324	35.7950	24.2071	26.6466	34.9744	27.5116
11.1389	20.7406	13.5226	18.1898	35.3326	24.0155	26.5440	34.6531	27.3460
11.1888	19.8377	14.0979	19.3678	34.9650	24.0000	26.5958	34.2265	27.1776
11.2388	18.9149	14.8352	20.4996	34.6267	24.1859	26.7933	33.5815	26.9731
11.2887	18.0055	15.6800	21.5163	34.2725	24.5755	27.0816	32.7372	26.7542
11.3387	17.2008	16.5432	22.3372	33.9934	25.1606	27.4510	31.7484	26.4192
11.3886	16.5249	17.3676	22.9025	33.7558	25.9546	27.9021	30.6581	25.9318
11.4386	15.9797	18.1302	23.1860	33.4350	27.0409	28.3563	29.5230	25.2793
11.4885	15.5899	18.7952	23.1378	32.9605	28.3881	28.7902	28.4111	24.5394
11.5385	15.3808	19.3154	22.8347	32.2847	29.8732	29.1924	27.3578	23.7924
11.5884	15.3546	19.6655	22.3077	31.4973	31.2655	29.5041	26.3636	23.1073
11.6384	15.4558	19.8667	21.5660	30.6672	32.5177	29.7943	25.5230	22.4621
11.6883	15.6156	19.9519	20.6883	29.9104	33.6156	30.0272	24.8376	21.8337
11.7383	15.7763	19.9786	19.7556	29.2871	34.5458	30.1322	24.2983	21.2111
11.7882	15.9141	19.9221	18.8729	28.8339	35.1996	30.0953	23.8475	20.6058
11.8382	15.9934	19.8053	18.1124	28.6011	35.4909	29.9388	23.4515	20.1486
11.8881	15.9419	19.6867	17.4636	28.5909	35.4503	29.6965	23.0510	19.9245
11.9381	15.7702	19.5665	16.9043	28.7350	35.1458	29.4155	22.6585	19.9247
11.9880	15.5005	19.4325	16.4595	28.9270	34.6213	29.0229	22.3217	20.0919
12.0380	15.2160	19.2488	16.1309	29.0597	33.8749	28.5421	22.0657	20.3803
12.0879	15.0132	18.9538	15.9681	29.1560	32.9516	27.9956	21.8670	20.7549
12.1379	14.9782	18.5710	15.9978	29.2402	31.8863	27.5409	21.7390	21.1806
12.1878	15.1251	18.1354	16.1488	29.3970	30.7133	27.2397	21.6699	21.5724

Table H1: Velocity Spectra

Freq. (Hz)	75-6-w	69-6-w	60-6-w	51-6-w	45-6-w	36-6-w	27-6-w	18-6-w
12.2378	15.4319	17.7326	16.3987	29.7134	29.5420	27.1190	21.6364	21.8934
12.2877	15.8880	17.3748	16.7481	30.2277	28.3846	27.1312	21.6386	22.1424
12.3377	16.5449	17.0507	17.1741	30.9306	27.2910	27.2293	21.6773	22.2942
12.3876	17.3922	16.7976	17.6399	31.7990	26.3237	27.3270	21.7155	22.3348
12.4376	18.3579	16.6042	18.0843	32.6860	25.5220	27.4498	21.8156	22.3006
12.4875	19.3806	16.4710	18.4191	33.4790	24.8002	27.5599	22.0030	22.1903

Table H1: Velocity Spectra

Freq. (Hz)	69-3-w	60-3-w	51-3-w	45-3-w	36-3-w
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0500	7.9650	7.8800	5.9000	3.3670	1.4040
0.0999	15.5145	15.8342	11.4585	6.7173	2.8481
0.1499	22.3951	24.0440	16.4590	10.0778	4.3816
0.1998	28.4715	32.5674	20.6993	13.4425	6.0080
0.2498	33.7480	41.3669	24.2356	16.8440	7.6963
0.2997	38.3616	50.2597	27.1229	20.2957	9.4106
0.3497	42.4886	58.9594	29.5182	23.8565	11.1065
0.3996	46.3136	67.1328	31.5684	27.5165	12.7432
0.4496	50.2203	74.6336	33.3918	31.2292	14.3018
0.4995	54.3456	81.4685	35.2247	34.8951	15.6993
0.5495	58.7416	87.4804	37.3660	38.4705	16.9246
0.5994	63.3566	92.6073	40.0040	41.8981	18.0539
0.6494	68.0571	96.9554	43.2695	45.1917	19.1378
0.6993	72.6573	100.9090	47.1748	48.3286	20.1328
0.7493	77.1779	105.0519	51.7092	51.4245	21.0478
0.7992	81.2786	109.4904	56.6713	54.5774	21.9300
0.8492	84.8775	114.3872	62.0171	57.9409	22.7840
0.8991	87.7252	119.8500	67.5134	61.5344	23.6014
0.9491	90.0126	126.1354	73.2326	65.2791	24.3349
0.9990	92.1478	133.2666	78.9909	69.2007	24.8851
1.0490	94.5674	141.5101	84.8431	73.3251	25.3229
1.0989	97.5054	150.8790	90.7911	77.5274	25.6813
1.1489	100.9653	161.8800	96.8293	81.4225	25.9881
1.1988	104.7871	174.4254	102.8091	84.7072	26.2417
1.2488	108.9828	187.6946	108.5956	87.2661	26.5120
1.2987	113.4934	201.8180	113.8440	88.8051	26.7922
1.3487	118.2001	216.4664	118.6991	89.3514	27.0954
1.3986	123.0768	231.4683	122.9649	88.8810	27.3846
1.4486	127.8534	246.4069	126.4048	87.5534	27.7117
1.4985	132.3775	260.1396	128.9609	85.6992	28.1119
1.5485	136.6551	272.0715	130.6779	83.8977	28.6008
1.5984	141.0428	283.7160	131.1647	82.5893	29.1228
1.6484	145.7680	295.3933	130.5038	82.1892	29.6053
1.6983	150.9789	306.7130	129.1557	82.8770	29.9920
1.7483	156.8400	316.6171	127.7483	84.4429	30.3855
1.7982	163.0608	325.1146	126.6472	86.6193	30.8931
1.8482	169.6278	331.9367	126.0288	88.9539	31.5303
1.8981	176.3715	337.6720	125.9200	91.0329	32.3816
1.9481	183.4136	342.0864	126.8798	92.7101	33.4489
1.9980	190.6891	345.4542	129.1307	94.0858	34.5854
2.0480	197.5501	347.3408	132.9562	95.0886	35.7581
2.0979	203.0138	347.8318	137.9369	95.5384	36.8811
2.1479	207.0361	347.3154	143.4797	95.4956	37.8675
2.1978	209.5602	345.2744	148.9669	95.4065	38.6813
2.2478	210.3266	340.7665	153.8170	95.5540	39.2915
2.2977	209.0218	334.3154	157.5533	96.2966	39.6813
2.3477	205.7055	326.5651	160.2070	98.1339	39.9344
2.3976	200.7271	318.1615	161.3585	101.1787	40.0159

Table H1: Velocity Spectra

Freq. (Hz)	69-3-w	60-3-w	51-3-w	45-3-w	36-3-w
2.4476	194.5597	311.0900	160.9297	105.1978	39.9204
2.4975	187.9619	306.4433	159.3155	109.8650	39.6853
2.5475	182.5793	305.9548	156.8241	115.2234	39.2315
2.5974	178.8829	311.1685	153.4544	120.9349	38.5714
2.6474	177.5876	320.3354	149.5781	126.3075	37.8313
2.6973	178.9389	332.0376	145.7621	130.6572	37.0879
2.7473	182.8053	344.7862	142.4750	133.6012	36.4017
2.7972	188.0278	358.3213	139.6642	134.9929	35.7762
2.8472	193.8658	371.5596	137.1496	134.7295	35.3053
2.8971	199.8130	382.7069	134.9469	132.8610	35.0259
2.9471	205.2950	391.6696	132.8847	129.6429	34.9231
2.9970	210.0597	398.0016	130.6093	125.3345	34.8851
3.0470	213.7471	400.0711	127.8826	120.2042	34.8882
3.0969	216.4423	397.3323	124.5883	114.6163	35.0569
3.1469	218.4578	390.5303	121.2815	109.3233	35.4656
3.1968	219.6841	380.0995	118.3455	104.7911	36.0279
3.2468	219.6136	367.5378	116.3653	101.3651	36.7538
3.2967	218.6042	353.4062	115.9120	99.3955	37.5824
3.3467	217.6024	339.0207	117.7034	98.6607	38.5540
3.3966	217.1107	325.7000	121.2247	98.8071	39.7402
3.4466	217.7562	314.2955	125.8354	99.3999	41.0490
3.4965	219.8949	305.1396	131.1188	100.1747	42.4475
3.5465	223.7842	297.2676	136.3629	101.0043	43.7283
3.5964	229.1266	289.5102	140.8710	101.7062	44.8831
3.6464	235.2293	281.6115	144.1057	101.8075	45.7988
3.6963	241.4054	272.5652	146.0408	101.2786	46.6843
3.7463	246.7313	262.3534	146.3305	100.2885	47.6529
3.7962	250.5112	251.0427	144.6352	98.7771	48.6293
3.8462	252.6953	240.3106	141.2709	96.9242	49.8468
3.8961	253.2075	231.2335	136.9479	94.9869	51.1558
3.9461	252.4715	224.6515	132.2733	93.0885	52.5621
3.9960	251.3084	219.8200	128.1517	91.3885	53.9460
4.0460	249.5977	216.1373	125.0214	90.0640	55.3088
4.0959	246.6551	213.6012	123.0408	89.2087	56.5644
4.1459	242.2449	212.4774	122.4284	88.8052	57.6280
4.1958	236.4753	213.1886	123.1887	88.6992	58.2377
4.2458	229.5279	216.3235	125.2936	88.6098	58.2524
4.2957	222.0447	220.8419	128.5273	88.2766	57.5624
4.3457	214.1126	226.4110	132.6308	87.6962	56.2334
4.3956	205.2745	231.9119	136.8350	86.9010	54.4615
4.4456	195.5619	236.5948	140.4810	86.1113	52.5025
4.4955	185.8440	239.6551	143.2716	85.6842	50.4845
4.5455	176.3199	241.0479	145.1833	85.9100	48.5459
4.5954	168.0078	241.3504	146.2716	86.8531	46.7352
4.6454	161.2883	241.2821	146.7017	88.4020	45.2601
4.6953	156.4943	241.3384	146.7751	90.0559	44.3049
4.7453	153.9375	241.4409	146.9619	91.5368	43.8845
4.7952	153.2066	241.5342	147.6922	92.3556	43.9096
4.8452	154.3196	241.5332	149.4744	92.2042	44.2076

Table H1: Velocity Spectra

Freq. (Hz)	69-3-w	60-3-w	51-3-w	45-3-w	36-3-w
4.8951	157.2306	241.0837	152.3845	90.9999	44.5846
4.9451	161.8037	238.8483	155.7707	88.9623	44.8076
4.9950	167.6322	234.9648	158.8410	86.6133	44.6803
5.0450	174.2543	229.6989	160.8346	84.2011	44.1135
5.0949	181.3784	223.2076	161.0498	82.1807	43.1079
5.1449	188.4062	216.1372	159.5433	80.7749	41.7920
5.1948	194.7011	209.1946	156.3115	80.3636	40.3480
5.2448	199.4073	202.7640	151.5223	80.9273	38.8640
5.2947	202.8929	196.0098	145.1277	82.3855	37.4494
5.3447	205.3968	188.9886	137.6795	84.8204	36.3065
5.3946	207.0447	181.7980	129.4165	87.8780	35.5774
5.4446	208.4737	174.9350	120.9246	91.2515	35.2919
5.4945	209.6701	169.1757	112.7471	94.5603	35.3132
5.5445	210.6910	165.0598	105.4564	97.3614	35.4349
5.5944	211.4124	162.9649	100.1957	99.4125	35.5972
5.6444	211.5521	162.8409	97.0837	100.6397	35.7911
5.6943	210.8030	164.1097	96.1198	100.7891	35.9937
5.7443	208.9202	166.6996	97.2510	99.6636	36.0972
5.7942	206.1576	170.3495	99.7761	97.4005	36.0052
5.8442	202.5600	174.1572	102.9748	94.0916	35.6672
5.8941	198.2186	177.7071	106.5064	90.0618	35.0876
5.9441	193.3021	181.0573	109.7875	85.9517	34.4045
5.9940	188.1517	184.1357	112.5074	82.1178	33.6323
6.0440	183.1936	186.6992	114.4129	78.6929	32.7887
6.0939	178.6731	188.2406	115.3575	75.6253	32.0295
6.1439	174.9168	188.6792	115.3824	72.9281	31.4260
6.1938	171.8160	187.4863	114.7711	70.6093	31.0805
6.2438	169.5816	184.4419	113.6372	68.6194	30.8943
6.2937	168.2306	179.8110	111.9649	66.7132	30.7888
6.3437	167.4102	174.0077	109.8094	65.0229	30.7543
6.3936	166.5533	167.9599	107.2846	63.4757	30.8555
6.4436	165.7294	162.3143	104.5152	62.1292	31.0710
6.4935	164.4154	157.4024	101.7531	60.8441	31.3052
6.5435	162.7368	153.6414	99.0686	59.6636	31.3892
6.5934	160.6812	151.1207	96.7252	58.6021	31.2461
6.6434	157.7143	149.8087	94.2034	57.3990	30.8985
6.6933	154.1467	149.1267	91.5643	55.8355	30.5014
6.7433	149.7687	148.6223	89.0790	54.0003	30.1560
6.7932	145.1028	148.0238	86.8171	52.1310	30.0124
6.8432	140.4225	146.9235	84.7872	50.4344	30.1032
6.8931	135.7251	145.4444	83.2686	49.0237	30.3159
6.9431	131.5023	143.7222	82.4146	48.0046	30.6052
6.9930	128.1118	141.4684	82.2377	47.2937	30.8811
7.0430	125.3654	138.8880	82.6848	46.7796	31.1371
7.0929	123.4165	136.3965	83.8381	46.3308	31.3577
7.1429	121.8579	133.7151	85.9291	46.0646	31.4145
7.1928	119.9759	130.9809	88.5434	45.9548	31.3031
7.2428	117.4058	128.4148	91.4766	46.0859	31.0064
7.2927	114.2037	126.3096	94.2946	46.4983	30.5272

Table H1: Velocity Spectra

Freq. (Hz)	69-3-w	60-3-w	51-3-w	45-3-w	36-3-w
7.3427	110.5076	124.6790	96.9236	47.2136	29.9435
7.3926	106.8231	123.5303	99.3565	48.1406	29.3856
7.4426	103.3033	122.2819	101.3682	49.3296	28.7880
7.4925	100.6243	120.7042	102.7971	50.7542	28.1643
7.5425	98.7313	119.0207	103.4831	52.3902	27.5754
7.5924	97.4105	116.9230	103.4085	54.1946	27.0973
7.6424	96.6764	114.8653	102.4082	55.9347	26.8554
7.6923	96.5384	113.1537	100.6153	57.4923	26.8846
7.7423	97.0884	112.0311	97.8627	58.6479	27.1135
7.7922	98.2596	111.1168	94.3635	59.2519	27.3896
7.8422	99.3607	110.5750	90.1853	59.2086	27.5732
7.8921	100.0718	110.3316	85.7871	58.5673	27.6302
7.9421	100.4676	110.2363	81.4065	57.4532	27.5432
7.9920	100.2996	110.1298	77.0748	56.0479	27.2927
8.0420	100.2837	110.0146	73.0937	54.5087	26.8764
8.0919	100.5014	109.6452	69.7522	52.9453	26.3715
8.1419	100.9596	108.6129	67.1462	51.5871	25.7935
8.1918	101.6602	106.6572	65.2067	50.4205	25.2389
8.2418	102.5280	104.0939	63.8492	49.4755	24.7089
8.2917	103.3975	101.1587	62.8843	48.7635	24.2366
8.3417	104.4381	97.9316	62.0622	48.1233	23.8156
8.3916	105.6502	94.9929	61.1412	47.5468	23.4293
8.4416	106.9551	92.1823	60.1295	47.1295	23.0287
8.4915	107.9270	89.7552	58.9820	46.8136	22.5704
8.5415	108.2208	87.5504	57.8687	46.6110	22.1225
8.5914	107.2207	85.6734	56.8493	46.5052	21.7362
8.6414	105.0794	84.1586	55.8839	46.4302	21.4134
8.6913	101.8620	82.9758	54.8334	46.4029	21.1112
8.7413	97.6403	81.9672	53.7415	46.4862	20.8480
8.7912	92.4834	81.0724	52.6681	46.6989	20.7121
8.8412	86.6261	80.4019	51.7387	47.0352	20.7680
8.8911	80.5267	79.8243	50.9727	47.5140	21.0186
8.9411	74.8281	79.1466	50.2937	48.0226	21.3603
8.9910	69.8960	78.4015	49.6753	48.4165	21.7582
9.0410	66.3338	77.4904	49.1921	48.5863	22.2047
9.0909	64.4272	76.4454	48.9636	48.5636	22.6818
9.1409	63.7395	75.3027	48.9312	48.4102	23.0625
9.1908	64.2529	74.1514	48.9686	48.0955	23.2987
9.2408	65.7021	73.0116	49.0409	47.6733	23.3515
9.2907	67.9801	71.7521	49.1664	47.2060	23.1710
9.3407	70.9800	70.6157	49.4310	46.5914	22.7726
9.3906	74.3078	69.7628	49.8735	45.8637	22.2369
9.4406	77.3940	69.2185	50.4222	45.1355	21.6473
9.4905	79.6443	68.9105	50.9260	44.3491	21.1353
9.5405	80.9130	69.1877	51.2039	43.5047	20.7410
9.5904	81.3266	70.1634	51.1072	42.4855	20.4563
9.6404	81.0083	71.7342	50.5446	41.3477	20.2641
9.6903	80.0903	73.7529	49.6337	40.0888	20.1849
9.7403	78.7016	76.1302	48.4093	38.8054	20.2014

Table H1: Velocity Spectra

Freq. (Hz)	69-3-w	60-3-w	51-3-w	45-3-w	36-3-w
9.7902	77.0489	78.6153	46.9440	37.5846	20.3147
9.8402	75.4055	81.0439	45.4617	36.3989	20.3889
9.8901	73.9878	83.1065	44.2384	35.3373	20.3736
9.9401	72.9106	84.6400	43.3786	34.4325	20.1983
9.9900	72.0279	85.5244	43.0969	33.6563	19.9201
10.0400	71.3944	85.5408	43.5334	33.0517	19.6483
10.0899	70.9017	84.5836	44.7588	32.6711	19.3423
10.1399	70.3202	82.6098	46.6030	32.6708	19.0123
10.1898	69.6982	79.8167	48.8295	32.9946	18.6473
10.2398	68.9651	76.4196	51.3014	33.5661	18.2985
10.2897	68.0355	72.6967	53.8254	34.2544	17.9761
10.3397	66.7117	68.9348	56.2480	34.9068	17.7429
10.3896	65.0181	65.1844	58.2545	35.4597	17.6208
10.4396	63.0865	61.7398	59.4848	35.8600	17.5907
10.4895	61.3006	58.7517	59.7482	36.2098	17.5804
10.5395	59.9803	56.4496	59.0739	36.5615	17.4850
10.5894	59.2477	54.9484	57.6381	36.9994	17.2395
10.6394	59.0593	54.0375	55.7505	37.6848	16.8847
10.6893	59.2722	53.7992	53.5320	38.6739	16.4722
10.7393	59.7212	54.1368	51.0546	39.9072	16.0230
10.7892	60.2577	54.9170	48.4867	41.2903	15.5904
10.8392	60.7212	55.9303	46.1858	42.6631	15.2291
10.8891	61.0225	56.8411	44.3731	43.8940	15.0052
10.9391	61.0074	57.4522	43.0235	44.8941	14.9866
10.9890	60.7032	57.6483	42.1978	45.5604	15.1978
11.0390	60.1184	57.4028	42.0034	45.8891	15.6202
11.0889	59.2369	56.7863	42.2598	45.8526	16.1676
11.1389	57.9891	55.9284	42.7957	45.4467	16.7863
11.1888	56.4923	54.9258	43.4014	44.5650	17.4433
11.2388	54.9128	53.7889	43.8988	43.2132	18.1844
11.2887	53.3052	52.4360	44.0259	41.5311	18.9763
11.3387	51.7838	50.8881	43.8014	39.7081	19.7180
11.3886	50.5198	49.3582	43.3564	37.9354	20.3514
11.4386	49.5863	48.2595	42.7575	36.3519	20.7496
11.4885	49.0674	47.6543	42.1513	35.1548	20.8746
11.5385	49.0617	47.4694	41.6771	34.2809	20.7578
11.5884	49.4941	47.7326	41.3011	33.7222	20.3840
11.6384	50.2662	48.4623	40.9788	33.4720	19.8318
11.6883	51.0194	49.4766	40.4181	33.4168	19.1571
11.7383	51.5546	50.4043	39.6402	33.4189	18.4291
11.7882	51.8091	51.0547	38.6653	33.4785	17.6823
11.8382	51.8276	51.4133	37.6928	33.5731	16.9523
11.8881	51.7608	51.4874	36.7461	33.7028	16.3342
11.9381	51.6681	51.2980	35.8024	33.8206	15.8538
11.9880	51.5964	50.8891	34.9450	33.8421	15.5724
12.0380	51.6671	50.2827	34.2120	33.6823	15.3966
12.0879	51.8813	49.5362	33.5318	33.3263	15.3275
12.1379	52.2537	48.6244	33.0758	32.7359	15.3544
12.1878	52.9560	47.4959	32.9802	31.9808	15.4663

Table H1: Velocity Spectra

Freq. (Hz)	69-3-w	60-3-w	51-3-w	45-3-w	36-3-w
12.2378	53.9197	46.2834	33.3235	31.1207	15.6399
12.2877	54.8400	45.2679	34.0492	30.2646	15.8143
12.3377	55.4950	44.6625	35.0761	29.4748	15.9033
12.3876	55.7814	44.5954	36.3576	28.8012	15.8809
12.4376	55.6085	45.1609	37.7108	28.2955	15.7211
12.4875	54.9575	46.1163	39.0484	27.9720	15.4720

Table H2: Concentration Spectra

Freq. (Hz)	75-12-c	69-12-c	60-12-c	51-12-c	45-12-c	36-12-c	27-12-c	18-12-c
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0496	0.2214	0.3178	0.2622	0.2467	0.4278	0.3042	0.3483	0.3639
0.0992	0.4544	0.5870	0.5244	0.4704	0.7878	0.5901	0.6484	0.6903
0.1488	0.6925	0.7697	0.7866	0.6668	1.0367	0.8398	0.8714	0.9511
0.1983	0.9112	0.8674	1.0328	0.8457	1.1801	1.0345	1.0119	1.1399
0.2479	1.0809	0.9269	1.2329	1.0249	1.2645	1.2025	1.0963	1.3032
0.2975	1.1967	1.0044	1.3747	1.2128	1.3756	1.3614	1.1711	1.4514
0.3471	1.2688	1.1151	1.4680	1.3749	1.4826	1.5143	1.2398	1.5621
0.3967	1.3395	1.2529	1.5053	1.4796	1.5793	1.6338	1.2917	1.6203
0.4463	1.4546	1.4176	1.5502	1.5291	1.6750	1.7428	1.3556	1.6254
0.4959	1.6235	1.6112	1.6098	1.5413	1.7686	1.8155	1.4701	1.6204
0.5455	1.8259	1.7723	1.6747	1.5850	1.8437	1.8473	1.5906	1.6174
0.5950	2.0615	1.8899	1.8057	1.7289	1.8876	1.8334	1.7350	1.6112
0.6446	2.2901	1.9890	1.9967	1.9382	1.8712	1.7974	1.8796	1.6065
0.6942	2.4765	2.0916	2.2047	2.1576	1.7849	1.7705	2.0242	1.5989
0.7438	2.5661	2.2276	2.3767	2.3548	1.6810	1.8085	2.1327	1.5753
0.7934	2.5159	2.3905	2.4948	2.5118	1.5612	1.8953	2.2171	1.5363
0.8430	2.3638	2.5859	2.5551	2.6201	1.4578	1.9880	2.2738	1.5144
0.8926	2.1622	2.7704	2.5691	2.6710	1.3844	2.0505	2.3425	1.5123
0.9421	1.9778	2.8727	2.5603	2.6557	1.3596	2.0665	2.3579	1.5428
0.9917	1.8927	2.8980	2.5281	2.5948	1.3612	2.0483	2.3543	1.5940
1.0413	1.9415	2.8161	2.5118	2.5440	1.3991	2.0236	2.3177	1.6816
1.0909	2.1140	2.6335	2.5631	2.4759	1.4499	2.0235	2.2558	1.7906
1.1405	2.2939	2.3806	2.6038	2.3742	1.4969	2.0494	2.1616	1.8935
1.1901	2.4111	2.1342	2.5399	2.2538	1.5102	2.0441	2.0561	1.9579
1.2397	2.4388	1.9756	2.3836	2.0968	1.5037	2.0083	1.9550	1.9926
1.2893	2.4038	1.9564	2.1457	1.9757	1.5024	1.9470	1.8610	1.9699
1.3388	2.3192	2.0436	1.8874	1.9160	1.5323	1.8584	1.7958	1.9190
1.3884	2.2217	2.1697	1.6746	1.9128	1.6294	1.7451	1.7678	1.8483
1.4380	2.1111	2.2629	1.5148	1.9520	1.7800	1.6627	1.7471	1.8001
1.4876	2.0332	2.3140	1.4272	2.0193	1.9247	1.6247	1.7929	1.7891
1.5372	1.9769	2.2907	1.3965	2.0911	1.9985	1.6508	1.8826	1.8138
1.5868	1.9428	2.1975	1.4292	2.1815	1.9675	1.7234	1.9510	1.8544
1.6364	1.9003	2.0732	1.4738	2.2710	1.8560	1.8172	2.0001	1.8690
1.6860	1.8564	1.9463	1.5251	2.3301	1.7130	1.9134	2.0157	1.8236
1.7355	1.8141	1.8554	1.5767	2.3257	1.6121	1.9855	1.9863	1.7590
1.7851	1.7349	1.7885	1.6287	2.2477	1.5842	1.9660	1.9433	1.6810
1.8347	1.6323	1.7483	1.6596	2.1377	1.5978	1.8583	1.8814	1.6167
1.8843	1.5270	1.6861	1.6602	1.9939	1.6566	1.6786	1.8086	1.5749
1.9339	1.4565	1.5796	1.6282	1.8228	1.7122	1.4691	1.7434	1.5359
1.9835	1.4006	1.4617	1.5768	1.6315	1.7273	1.3071	1.7014	1.5003
2.0331	1.3700	1.3580	1.4968	1.4666	1.6904	1.2405	1.6402	1.4532
2.0826	1.3636	1.2701	1.4109	1.3578	1.5977	1.2517	1.5485	1.4020
2.1322	1.3491	1.1920	1.3359	1.3038	1.4899	1.2945	1.4507	1.3225
2.1818	1.3229	1.1128	1.2645	1.2742	1.3707	1.3313	1.3731	1.2212
2.2314	1.3103	1.0449	1.2146	1.2451	1.2585	1.3275	1.3122	1.1477
2.2810	1.2892	1.0102	1.1880	1.2234	1.1398	1.2874	1.2748	1.1473
2.3306	1.2591	1.0279	1.2047	1.2264	1.0535	1.2301	1.2516	1.2075
2.3802	1.2370	1.0412	1.2490	1.2421	1.0167	1.1909	1.2261	1.2963
2.4298	1.2128	1.0496	1.2750	1.2505	1.0227	1.1861	1.2163	1.3876
2.4793	1.1502	1.0440	1.2719	1.2293	1.0282	1.2178	1.1868	1.4159
2.5289	1.0581	1.0282	1.2478	1.2028	1.0173	1.2421	1.1368	1.3677
2.5785	0.9766	0.9922	1.1814	1.1742	0.9837	1.2429	1.0714	1.2677
2.6281	0.9376	0.9445	1.0600	1.1550	0.9427	1.1947	0.9898	1.1231

Table H2: Concentration Spectra

Freq. (Hz)	75-12-c	69-12-c	60-12-c	51-12-c	45-12-c	36-12-c	27-12-c	18-12-c
2.6777	0.9356	0.9040	0.9102	1.1303	0.8828	1.1028	0.9044	0.9610
2.7273	0.9569	0.9009	0.7668	1.0921	0.8143	0.9985	0.8151	0.8283
2.7769	0.9662	0.9425	0.6709	1.0397	0.7543	0.8980	0.7490	0.7425
2.8264	0.9461	0.9952	0.6353	0.9929	0.7384	0.8183	0.7211	0.6820
2.8760	0.9036	1.0179	0.6386	0.9687	0.7454	0.7809	0.7198	0.6472
2.9256	0.8375	1.0089	0.6691	0.9600	0.7522	0.7622	0.7536	0.6229
2.9752	0.7425	0.9558	0.7177	0.9376	0.7464	0.7425	0.7952	0.6222
3.0248	0.6572	0.8839	0.7652	0.9008	0.7275	0.7281	0.8306	0.6624
3.0744	0.6048	0.8036	0.7837	0.8533	0.7076	0.7250	0.8367	0.7430
3.1240	0.5825	0.7371	0.7670	0.7903	0.6931	0.7348	0.8122	0.8341
3.1736	0.5917	0.6970	0.7295	0.7340	0.6778	0.7494	0.7681	0.9062
3.2231	0.6151	0.6786	0.6866	0.6849	0.6683	0.7660	0.7221	0.9471
3.2727	0.6390	0.6594	0.6472	0.6482	0.6691	0.7688	0.7030	0.9444
3.3223	0.6438	0.6392	0.6128	0.6292	0.6765	0.7541	0.7007	0.9009
3.3719	0.6485	0.6243	0.5981	0.6337	0.6747	0.7510	0.7161	0.8531
3.4215	0.6681	0.6210	0.6404	0.6628	0.6584	0.8069	0.7499	0.8307
3.4711	0.7032	0.6218	0.7381	0.7025	0.6283	0.9118	0.7777	0.8323
3.5207	0.7391	0.6275	0.8631	0.7329	0.6030	1.0408	0.7836	0.8508
3.5702	0.7600	0.6279	0.9675	0.7432	0.5848	1.1328	0.7608	0.8655
3.6198	0.7493	0.6189	1.0107	0.7326	0.5704	1.1485	0.7142	0.8556
3.6694	0.7111	0.5921	0.9828	0.7108	0.5547	1.0736	0.6545	0.8118
3.7190	0.6606	0.5454	0.8840	0.6774	0.5328	0.9122	0.6028	0.7398
3.7686	0.6086	0.4809	0.7394	0.6320	0.5040	0.7002	0.5714	0.6485
3.8182	0.5605	0.4137	0.5906	0.5961	0.4695	0.4951	0.5465	0.5675
3.8678	0.5360	0.3615	0.4907	0.5871	0.4291	0.3634	0.5301	0.5193
3.9174	0.5308	0.3285	0.4694	0.5833	0.3923	0.3251	0.5254	0.4993
3.9669	0.5038	0.3024	0.4738	0.5591	0.3718	0.3122	0.5147	0.4816
4.0165	0.4540	0.2865	0.4734	0.5139	0.3806	0.3112	0.5036	0.4663
4.0661	0.3964	0.2790	0.4602	0.4626	0.4106	0.3114	0.4920	0.4506
4.1157	0.3511	0.2764	0.4416	0.4195	0.4378	0.3039	0.4740	0.4265
4.1653	0.3296	0.2835	0.4322	0.3884	0.4534	0.2961	0.4514	0.3907
4.2149	0.3323	0.3030	0.4291	0.3680	0.4510	0.2945	0.4230	0.3539
4.2645	0.3437	0.3282	0.4292	0.3532	0.4350	0.3005	0.3896	0.3209
4.3140	0.3509	0.3586	0.4240	0.3455	0.4079	0.3106	0.3470	0.2953
4.3636	0.3511	0.3873	0.4118	0.3419	0.3710	0.3275	0.3054	0.2822
4.4132	0.3440	0.4069	0.3854	0.3273	0.3349	0.3393	0.2777	0.2837
4.4628	0.3315	0.4107	0.3495	0.3110	0.3063	0.3472	0.2646	0.2920
4.5124	0.3153	0.4005	0.3163	0.2968	0.2938	0.3510	0.2643	0.3055
4.5620	0.3007	0.3768	0.2912	0.2902	0.2857	0.3452	0.2683	0.3157
4.6116	0.2891	0.3457	0.2817	0.2987	0.2763	0.3306	0.2768	0.3209
4.6612	0.2778	0.3096	0.2902	0.3133	0.2696	0.3128	0.2854	0.3244
4.7107	0.2593	0.2719	0.3007	0.3241	0.2696	0.3047	0.2907	0.3296
4.7603	0.2320	0.2385	0.3038	0.3234	0.2734	0.3137	0.2938	0.3331
4.8099	0.2020	0.2191	0.3127	0.3122	0.2792	0.3404	0.2969	0.3311
4.8595	0.1791	0.2205	0.3235	0.2922	0.2852	0.3751	0.2964	0.3235
4.9091	0.1708	0.2370	0.3422	0.2718	0.2972	0.4014	0.2934	0.3138
4.9587	0.1762	0.2583	0.3631	0.2609	0.3187	0.4085	0.2856	0.2982

Table H2: Concentration Spectra

Freq. (Hz)	75-9-c	69-9-c	Freq. (Hz)	60-9-c	51-9-c	45-9-c	36-9-c	27-9-c	18-9-c
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0521	0.3563	0.2517	0.0496	0.2668	0.2648	0.3303	0.3373	0.2408	0.4499
0.1042	0.6527	0.5278	0.0992	0.5036	0.5116	0.6000	0.6130	0.5214	0.7986
0.1562	0.8594	0.8371	0.1488	0.6972	0.7507	0.7855	0.7962	0.8444	1.0012
0.2083	1.0059	1.1440	0.1983	0.8302	0.9811	0.8943	0.8967	1.1819	1.0900
0.2604	1.1573	1.3936	0.2479	0.9379	1.2230	0.9799	0.9841	1.4728	1.1691
0.3125	1.2356	1.5571	0.2975	1.0545	1.4760	1.0891	1.1194	1.6712	1.3315
0.3646	1.2432	1.6461	0.3471	1.1716	1.7270	1.2155	1.3060	1.7713	1.5326
0.4167	1.2723	1.7088	0.3967	1.2736	1.9294	1.3155	1.5063	1.7827	1.6920
0.4687	1.3322	1.8073	0.4463	1.3825	2.0646	1.3971	1.6947	1.7507	1.7695
0.5208	1.4597	1.9407	0.4959	1.5061	2.1000	1.4734	1.8488	1.7375	1.7577
0.5729	1.6021	2.0255	0.5455	1.6165	2.0356	1.5340	1.9019	1.7555	1.6877
0.6250	1.6687	2.0241	0.5950	1.7012	1.9376	1.5942	1.8834	1.7788	1.6389
0.6771	1.6487	1.9795	0.6446	1.7927	1.8558	1.6399	1.8335	1.8043	1.6342
0.7292	1.5650	1.9323	0.6942	1.9216	1.7755	1.6519	1.7996	1.8506	1.6848
0.7812	1.4990	1.8830	0.7438	2.0718	1.7568	1.6042	1.8178	1.8837	1.7985
0.8333	1.5159	1.8241	0.7934	2.2650	1.8296	1.5112	1.8843	1.9187	1.8922
0.8854	1.6514	1.7118	0.8430	2.4980	1.9675	1.4067	1.9642	1.9263	1.9042
0.9375	1.9019	1.5855	0.8926	2.7108	2.0958	1.3616	2.0398	1.9546	1.8339
0.9896	2.1428	1.4898	0.9421	2.8571	2.1725	1.3946	2.1106	1.9913	1.7149
1.0417	2.2397	1.4655	0.9917	2.9301	2.2037	1.4785	2.1567	2.0395	1.5758
1.0937	2.1587	1.5215	1.0413	2.9140	2.2121	1.5801	2.1495	2.0622	1.4544
1.1458	1.9117	1.5546	1.0909	2.8493	2.2107	1.6756	2.0787	2.0981	1.3795
1.1979	1.6283	1.5067	1.1405	2.7759	2.2315	1.7458	1.9645	2.1109	1.3840
1.2500	1.4503	1.4019	1.1901	2.6695	2.2288	1.7585	1.8076	2.1597	1.4621
1.3021	1.4473	1.3213	1.2397	2.4526	2.2004	1.7200	1.6476	2.2048	1.5751
1.3542	1.5284	1.3137	1.2893	2.1872	2.1082	1.6896	1.5176	2.2881	1.7040
1.4062	1.5959	1.3695	1.3388	1.9807	1.9647	1.7261	1.4373	2.3887	1.8056
1.4583	1.6385	1.4725	1.3884	1.8794	1.7347	1.8453	1.4809	2.4667	1.8391
1.5104	1.6716	1.5272	1.4380	1.9278	1.5073	2.0028	1.6579	2.4562	1.8271
1.5625	1.6845	1.4905	1.4876	2.0847	1.3597	2.1232	1.8846	2.3256	1.8007
1.6146	1.7052	1.3998	1.5372	2.2742	1.3084	2.1776	2.0854	2.0958	1.7592
1.6667	1.6772	1.2994	1.5868	2.3958	1.3417	2.1595	2.2294	1.8160	1.7111
1.7187	1.5514	1.2125	1.6364	2.3784	1.4797	2.0664	2.2877	1.5144	1.6565
1.7708	1.3802	1.1425	1.6860	2.2091	1.6447	1.9054	2.2349	1.2746	1.6408
1.8229	1.2240	1.0786	1.7355	1.9276	1.7852	1.7219	2.1088	1.1534	1.6317
1.8750	1.1229	1.0328	1.7851	1.6651	1.8562	1.5770	1.9410	1.1693	1.6086
1.9271	1.0529	0.9818	1.8347	1.5044	1.8308	1.5283	1.7923	1.2682	1.5761
1.9792	0.9628	0.9342	1.8843	1.4797	1.7276	1.5696	1.7302	1.3922	1.5452
2.0312	0.8752	0.8911	1.9339	1.5522	1.5892	1.6571	1.7023	1.5209	1.5219
2.0833	0.7854	0.8318	1.9835	1.6609	1.4665	1.7207	1.6775	1.6317	1.5073
2.1354	0.7207	0.7727	2.0331	1.7818	1.4122	1.7098	1.6422	1.6957	1.4412
2.1875	0.6869	0.7313	2.0826	1.8794	1.4495	1.6133	1.5960	1.6894	1.3449
2.2396	0.6672	0.7253	2.1322	1.9334	1.5406	1.4424	1.5530	1.6119	1.2553
2.2917	0.6619	0.7455	2.1818	1.9405	1.6253	1.2560	1.4988	1.4832	1.1796
2.3437	0.6542	0.7590	2.2314	1.8975	1.6809	1.1306	1.4250	1.3427	1.1327
2.3958	0.6332	0.7336	2.2810	1.8308	1.6928	1.1013	1.3386	1.2031	1.0825
2.4479	0.6107	0.6632	2.3306	1.7190	1.6416	1.1747	1.2470	1.0917	1.0431
2.5000	0.5979	0.5792	2.3802	1.5903	1.5169	1.2818	1.1338	1.0198	0.9938
2.5521	0.5960	0.5343	2.4298	1.4864	1.3651	1.3601	1.0484	0.9901	0.9488
2.6042	0.5895	0.5354	2.4793	1.4414	1.2128	1.3615	0.9757	0.9914	0.9011
2.6562	0.5731	0.5594	2.5289	1.4263	1.0992	1.3015	0.9428	1.0064	0.8736
2.7083	0.5536	0.5699	2.5785	1.4096	1.0451	1.2039	0.9524	1.0213	0.8829
2.7604	0.5279	0.5516	2.6281	1.3341	1.0174	1.1016	0.9889	1.0159	0.9078

Table H2: Concentration Spectra

Freq. (Hz)	75-9-c	69-9-c	Freq. (Hz)	60-9-c	51-9-c	45-9-c	36-9-c	27-9-c	18-9-c
2.8125	0.5073	0.5306	2.6777	1.2198	0.9992	1.0442	1.0168	0.9943	0.9330
2.8646	0.5182	0.5399	2.7273	1.0803	0.9720	1.0274	1.0168	0.9556	0.9421
2.9167	0.5500	0.5749	2.7769	0.9385	0.9392	1.0387	0.9682	0.9042	0.9425
2.9687	0.5787	0.6146	2.8264	0.8020	0.9006	1.0497	0.9054	0.8396	0.9424
3.0208	0.5866	0.6210	2.8760	0.7087	0.8762	1.0529	0.8379	0.7667	0.9589
3.0729	0.5684	0.5808	2.9256	0.6803	0.8709	1.0478	0.8120	0.7075	0.9666
3.1250	0.5158	0.5062	2.9752	0.7048	0.8732	1.0419	0.8216	0.6855	0.9652
3.1771	0.4400	0.4271	3.0248	0.7677	0.8751	1.0351	0.8635	0.6797	0.9540
3.2292	0.3786	0.3692	3.0744	0.8497	0.8551	1.0358	0.9222	0.6849	0.9235
3.2812	0.3484	0.3372	3.1240	0.9203	0.8121	1.0277	0.9932	0.6901	0.8774
3.3333	0.3235	0.3091	3.1736	0.9583	0.7496	0.9850	1.0550	0.6950	0.8026
3.3854	0.3119	0.2937	3.2231	0.9495	0.6757	0.8978	1.0892	0.6874	0.7193
3.4375	0.3057	0.2894	3.2727	0.8846	0.6129	0.8005	1.0811	0.6606	0.6517
3.4896	0.2928	0.2762	3.3223	0.7755	0.5758	0.7245	1.0287	0.6181	0.6137
3.5417	0.2725	0.2459	3.3719	0.6656	0.5891	0.6772	0.9661	0.5785	0.6229
3.5937	0.2522	0.2177	3.4215	0.6146	0.6551	0.6490	0.9472	0.5662	0.6783
3.6458	0.2326	0.2002	3.4711	0.6370	0.7471	0.6538	0.9646	0.5750	0.7569
3.6979	0.2116	0.1984	3.5207	0.7194	0.8414	0.6734	0.9978	0.5947	0.8302
3.7500	0.1929	0.2143	3.5702	0.7946	0.9081	0.6924	1.0192	0.6105	0.8643
3.8021	0.1821	0.2395	3.6198	0.8261	0.9157	0.6981	0.9971	0.6135	0.8416
3.8542	0.1768	0.2575	3.6694	0.8119	0.8564	0.6726	0.9234	0.6058	0.7616
3.9062	0.1752	0.2605	3.7190	0.7600	0.7485	0.6225	0.8036	0.5871	0.6490
3.9583	0.1771	0.2523	3.7686	0.6851	0.6162	0.5729	0.6661	0.5648	0.5366
4.0104	0.1858	0.2444	3.8182	0.6113	0.5069	0.5308	0.5457	0.5424	0.4507
4.0625	0.1961	0.2312	3.8678	0.5622	0.4503	0.4946	0.4753	0.5295	0.4078
4.1146	0.2052	0.2135	3.9174	0.5473	0.4314	0.4729	0.4611	0.5199	0.4036
4.1667	0.2077	0.1989	3.9669	0.5370	0.4241	0.4778	0.4464	0.4917	0.4004
4.2187	0.2023	0.1847	4.0165	0.5210	0.4165	0.5008	0.4201	0.4497	0.3885
4.2708	0.1911	0.1724	4.0661	0.5063	0.4075	0.5296	0.3790	0.4003	0.3725
4.3229	0.1843	0.1616	4.1157	0.4982	0.3975	0.5557	0.3367	0.3495	0.3548
4.3750	0.1862	0.1549	4.1653	0.4970	0.3918	0.5635	0.3063	0.3077	0.3466
4.4271	0.1917	0.1505	4.2149	0.4937	0.3870	0.5490	0.2866	0.2729	0.3507
4.4792	0.1885	0.1448	4.2645	0.4774	0.3832	0.5125	0.2753	0.2485	0.3638
4.5312	0.1753	0.1397	4.3140	0.4398	0.3829	0.4635	0.2651	0.2317	0.3732
4.5833	0.1580	0.1413	4.3636	0.3938	0.3781	0.4075	0.2561	0.2177	0.3814
4.6354	0.1463	0.1524	4.4132	0.3485	0.3608	0.3676	0.2453	0.2050	0.3791
4.6875	0.1448	0.1699	4.4628	0.3156	0.3393	0.3540	0.2326	0.1946	0.3646
4.7396	0.1507	0.1885	4.5124	0.3054	0.3191	0.3639	0.2181	0.1899	0.3429
4.7917	0.1555	0.2009	4.5620	0.3088	0.3035	0.3788	0.2079	0.1963	0.3220
4.8437	0.1536	0.2039	4.6116	0.3161	0.2907	0.3841	0.2069	0.2116	0.3020
4.8958	0.1439	0.1986	4.6612	0.3175	0.2795	0.3722	0.2140	0.2290	0.2842
4.9479	0.1325	0.1926	4.7107	0.3086	0.2699	0.3524	0.2277	0.2467	0.2646
5.0000	0.1296	0.1913	4.7603	0.2891	0.2621	0.3309	0.2448	0.2592	0.2416
			4.8099	0.2650	0.2642	0.3177	0.2623	0.2638	0.2254
			4.8595	0.2488	0.2832	0.3107	0.2751	0.2582	0.2262
			4.9091	0.2471	0.3101	0.3178	0.2813	0.2477	0.2359
			4.9587	0.2560	0.3389	0.3262	0.2773	0.2427	0.2458

Table H2: Concentration Spectra

Freq. (Hz)	75-6-c	Freq. (Hz)	69-6-c	60-6-c	51-6-c	45-6-c	36-6-c	27-6-c	18-6-c
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0521	0.4774	0.0496	0.2543	0.2774	0.3012	0.5286	0.2032	0.2545	0.2708
0.1042	0.7409	0.0992	0.5086	0.5752	0.5837	0.9263	0.3860	0.5042	0.4934
0.1562	0.7417	0.1488	0.7573	0.8884	0.8306	1.1176	0.5424	0.7484	0.6538
0.2083	0.6542	0.1983	0.9793	1.1876	1.0333	1.1251	0.7072	0.9747	0.7772
0.2604	0.6994	0.2479	1.1539	1.4380	1.1810	1.0828	0.9094	1.1591	0.9065
0.3125	0.8165	0.2975	1.2778	1.6140	1.2942	1.1486	1.1629	1.2871	1.0580
0.3646	0.9127	0.3471	1.3726	1.7047	1.3746	1.2605	1.4702	1.3678	1.2427
0.4167	0.9940	0.3967	1.4561	1.7225	1.4307	1.3436	1.8065	1.4153	1.4271
0.4687	1.0736	0.4463	1.5706	1.7073	1.4643	1.4001	2.0953	1.4431	1.5731
0.5208	1.1548	0.4959	1.7264	1.6820	1.4661	1.4497	2.3116	1.4675	1.6599
0.5729	1.2359	0.5455	1.8888	1.6631	1.4559	1.4979	2.4250	1.5176	1.7295
0.6250	1.3261	0.5950	2.0264	1.6438	1.4369	1.5052	2.4363	1.5882	1.8288
0.6771	1.3876	0.6446	2.0856	1.5904	1.3706	1.4414	2.3281	1.6013	1.9239
0.7292	1.4027	0.6942	2.0228	1.5810	1.3457	1.3665	2.2315	1.5751	2.0617
0.7812	1.3727	0.7438	1.8999	1.5992	1.3802	1.2968	2.1108	1.5016	2.1746
0.8333	1.3114	0.7934	1.7864	1.6793	1.4781	1.2913	1.9767	1.4585	2.2126
0.8854	1.2256	0.8430	1.7386	1.7997	1.6106	1.3619	1.8804	1.4668	2.1714
0.9375	1.1214	0.8926	1.7058	1.9478	1.7383	1.5488	1.8399	1.5157	2.0502
0.9896	1.0693	0.9421	1.6702	2.0965	1.8450	1.8133	1.8565	1.6182	1.9018
1.0417	1.1224	0.9917	1.6156	2.1935	1.9011	2.0947	1.9232	1.7513	1.8026
1.0937	1.2045	1.0413	1.5446	2.2231	1.8634	2.3157	2.0058	1.8805	1.8328
1.1458	1.3237	1.0909	1.4903	2.2073	1.7255	2.4057	2.0819	1.9807	1.9974
1.1979	1.4772	1.1405	1.4997	2.1233	1.5226	2.3438	2.1730	2.0408	2.2346
1.2500	1.5626	1.1901	1.5920	1.9765	1.3248	2.1498	2.2771	2.0771	2.5131
1.3021	1.5414	1.2397	1.7756	1.8020	1.1864	1.8806	2.3728	2.0866	2.7745
1.3542	1.4361	1.2893	2.0321	1.6547	1.1446	1.6268	2.4398	2.0742	2.9297
1.4062	1.2832	1.3388	2.3178	1.5709	1.2056	1.4823	2.4692	2.0252	2.9771
1.4583	1.1464	1.3884	2.5981	1.5842	1.3429	1.4808	2.4923	1.9275	2.9098
1.5104	1.0397	1.4380	2.8024	1.6873	1.5085	1.5378	2.5037	1.8604	2.7654
1.5625	1.0259	1.4876	2.9272	1.8204	1.6027	1.6174	2.4564	1.8619	2.5712
1.6146	1.0361	1.5372	2.9085	1.9571	1.5910	1.7043	2.3549	1.9095	2.3501
1.6667	1.0204	1.5868	2.7622	2.1036	1.4765	1.7718	2.2411	1.9908	2.1177
1.7187	1.0083	1.6364	2.5482	2.2067	1.2903	1.7924	2.1481	2.0597	1.9148
1.7708	1.0027	1.6860	2.3319	2.2482	1.0990	1.7577	2.0777	2.0609	1.7984
1.8229	0.9858	1.7355	2.1574	2.2214	0.9775	1.6894	2.0393	1.9722	1.7700
1.8750	0.9420	1.7851	2.0198	2.1045	0.9886	1.6086	2.0271	1.8135	1.8086
1.9271	0.8801	1.8347	1.9127	1.9233	1.0947	1.5320	2.0307	1.6256	1.9023
1.9792	0.8048	1.8843	1.8290	1.7356	1.2544	1.4702	2.0656	1.4810	2.0192
2.0312	0.7315	1.9339	1.7417	1.5439	1.4468	1.4157	2.0908	1.4057	2.1073
2.0833	0.6662	1.9835	1.6250	1.3804	1.6253	1.4064	2.0504	1.3754	2.1612
2.1354	0.6078	2.0331	1.4849	1.2531	1.7515	1.4357	1.9322	1.3531	2.1665
2.1875	0.5466	2.0826	1.3437	1.1755	1.7933	1.4706	1.7531	1.3077	2.1158
2.2396	0.5080	2.1322	1.2466	1.1251	1.7534	1.4956	1.5607	1.2229	2.0172
2.2917	0.4945	2.1818	1.1848	1.0884	1.6578	1.4934	1.3909	1.1008	1.8697
2.3437	0.5034	2.2314	1.1442	1.0807	1.5424	1.4531	1.2606	0.9684	1.6607
2.3958	0.5220	2.2810	1.1610	1.0806	1.4225	1.3612	1.1474	0.8646	1.4262
2.4479	0.5377	2.3306	1.2303	1.0865	1.2822	1.2483	1.0721	0.7919	1.2270
2.5000	0.5279	2.3802	1.3330	1.0895	1.1471	1.1663	1.0200	0.7473	1.0830
2.5521	0.4964	2.4298	1.3792	1.0872	1.0455	1.1201	0.9640	0.7273	1.0275
2.6042	0.4638	2.4793	1.3322	1.0710	0.9479	1.1191	0.9083	0.7023	1.0453
2.6562	0.4356	2.5289	1.2106	1.0509	0.8323	1.1326	0.8585	0.6734	1.0854
2.7083	0.3978	2.5785	1.0587	1.0418	0.7268	1.1122	0.8436	0.6432	1.1042
2.7604	0.3568	2.6281	0.9050	1.0411	0.6591	1.0445	0.8809	0.6223	1.0896

Table H2: Concentration Spectra

Freq. (Hz)	75-6-c	Freq. (Hz)	69-6-c	60-6-c	51-6-c	45-6-c	36-6-c	27-6-c	18-6-c
2.8125	0.3362	2.6777	0.7954	1.0585	0.6356	0.9282	0.9624	0.6230	1.0378
2.8646	0.3464	2.7273	0.7637	1.0790	0.6472	0.7943	1.0508	0.6499	0.9646
2.9167	0.3720	2.7769	0.7986	1.0623	0.6835	0.6792	1.1090	0.6870	0.8971
2.9687	0.4066	2.8264	0.8449	1.0115	0.7308	0.6054	1.1235	0.7112	0.8518
3.0208	0.4389	2.8760	0.8707	0.9521	0.7679	0.5806	1.1054	0.7101	0.8314
3.0729	0.4471	2.9256	0.8580	0.9016	0.7835	0.5805	1.0578	0.6885	0.8245
3.1250	0.4273	2.9752	0.8162	0.8471	0.7842	0.5859	0.9916	0.6511	0.8272
3.1771	0.3925	3.0248	0.7555	0.7868	0.7874	0.5845	0.9236	0.5991	0.8269
3.2292	0.3604	3.0744	0.7039	0.7452	0.8067	0.5689	0.8673	0.5385	0.8235
3.2812	0.3298	3.1240	0.6679	0.7171	0.8295	0.5387	0.8067	0.4797	0.8102
3.3333	0.2898	3.1736	0.6605	0.7000	0.8281	0.5006	0.7392	0.4404	0.8021
3.3854	0.2484	3.2231	0.6769	0.6812	0.7960	0.4578	0.6807	0.4239	0.8083
3.4375	0.2120	3.2727	0.6997	0.6458	0.7338	0.4221	0.6477	0.4171	0.8294
3.4896	0.1863	3.3223	0.7040	0.6014	0.6497	0.4047	0.6568	0.4024	0.8523
3.5417	0.1728	3.3719	0.7018	0.5919	0.5729	0.4273	0.7059	0.3942	0.8997
3.5937	0.1699	3.4215	0.7056	0.6656	0.5325	0.4874	0.7717	0.4212	0.9936
3.6458	0.1697	3.4711	0.7159	0.7886	0.5356	0.5700	0.8217	0.4730	1.1010
3.6979	0.1680	3.5207	0.7194	0.9224	0.5630	0.6511	0.8497	0.5283	1.1792
3.7500	0.1671	3.5702	0.7160	1.0336	0.5834	0.7062	0.8484	0.5721	1.2014
3.8021	0.1660	3.6198	0.6986	1.0854	0.5713	0.7200	0.8064	0.5888	1.1674
3.8542	0.1572	3.6694	0.6748	1.0519	0.5324	0.6923	0.7341	0.5726	1.0781
3.9062	0.1434	3.7190	0.6382	0.9401	0.4789	0.6305	0.6452	0.5226	0.9476
3.9583	0.1358	3.7686	0.5990	0.7801	0.4266	0.5485	0.5523	0.4510	0.7971
4.0104	0.1410	3.8182	0.5649	0.6176	0.3961	0.4662	0.4794	0.3809	0.6596
4.0625	0.1559	3.8678	0.5452	0.5048	0.3976	0.4104	0.4415	0.3309	0.5739
4.1146	0.1740	3.9174	0.5403	0.4689	0.4152	0.3811	0.4359	0.3060	0.5523
4.1667	0.1916	3.9669	0.5269	0.4520	0.4251	0.3697	0.4358	0.2804	0.5373
4.2187	0.1985	4.0165	0.5054	0.4393	0.4184	0.3690	0.4397	0.2508	0.5270
4.2708	0.1884	4.0661	0.4778	0.4389	0.3953	0.3652	0.4480	0.2208	0.5164
4.3229	0.1704	4.1157	0.4524	0.4442	0.3605	0.3565	0.4536	0.1939	0.5057
4.3750	0.1552	4.1653	0.4311	0.4497	0.3207	0.3429	0.4583	0.1750	0.4909
4.4271	0.1472	4.2149	0.4115	0.4529	0.2803	0.3281	0.4576	0.1673	0.4725
4.4792	0.1481	4.2645	0.3881	0.4491	0.2466	0.3151	0.4519	0.1721	0.4526
4.5312	0.1557	4.3140	0.3608	0.4292	0.2236	0.3055	0.4434	0.1820	0.4368
4.5833	0.1631	4.3636	0.3352	0.3989	0.2128	0.2989	0.4285	0.1916	0.4310
4.6354	0.1627	4.4132	0.3140	0.3742	0.2162	0.2900	0.4061	0.2015	0.4311
4.6875	0.1551	4.4628	0.3006	0.3595	0.2300	0.2743	0.3873	0.2109	0.4323
4.7396	0.1461	4.5124	0.2886	0.3560	0.2456	0.2501	0.3831	0.2187	0.4310
4.7917	0.1389	4.5620	0.2762	0.3603	0.2591	0.2213	0.3925	0.2252	0.4211
4.8437	0.1332	4.6116	0.2696	0.3670	0.2681	0.1971	0.4049	0.2298	0.3987
4.8958	0.1298	4.6612	0.2725	0.3708	0.2733	0.1891	0.4162	0.2329	0.3722
4.9479	0.1274	4.7107	0.2825	0.3692	0.2729	0.2002	0.4168	0.2368	0.3488
5.0000	0.1268	4.7603	0.2927	0.3622	0.2682	0.2235	0.4073	0.2415	0.3295
		4.8099	0.2976	0.3550	0.2614	0.2471	0.3934	0.2444	0.3134
		4.8595	0.2988	0.3542	0.2539	0.2631	0.3709	0.2450	0.3028
		4.9091	0.2935	0.3609	0.2458	0.2704	0.3433	0.2442	0.2952
		4.9587	0.2787	0.3677	0.2369	0.2723	0.3162	0.2371	0.2906

Table H2: Concentration Spectra

Freq. (Hz)	69-3-c	60-3-c	51-3-c	45-3-c	36-3-c
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0496	0.4229	0.2873	0.3007	0.2811	0.2581
0.0992	0.7425	0.5348	0.5635	0.5371	0.4896
0.1488	0.9032	0.7307	0.7567	0.7448	0.6755
0.1983	0.9154	0.8944	0.8786	0.8802	0.8089
0.2479	0.8707	1.0520	0.9718	0.9521	0.9161
0.2975	0.8769	1.2228	1.0929	0.9974	1.0195
0.3471	0.9517	1.4174	1.2486	1.0653	1.1584
0.3967	1.0705	1.6305	1.4337	1.1801	1.3290
0.4463	1.2547	1.8105	1.6623	1.3417	1.4952
0.4959	1.4878	1.9323	1.9399	1.5142	1.6296
0.5455	1.7436	1.9509	2.2220	1.6399	1.7020
0.5950	1.9822	1.9056	2.4591	1.6764	1.7195
0.6446	2.1641	1.8236	2.6038	1.6335	1.7227
0.6942	2.2678	1.7675	2.6565	1.5734	1.7398
0.7438	2.2954	1.7310	2.6376	1.5571	1.8261
0.7934	2.2500	1.7300	2.5571	1.6234	2.0087
0.8430	2.1551	1.8044	2.4446	1.7515	2.2960
0.8926	2.0334	1.9487	2.3000	1.8967	2.6023
0.9421	1.9261	2.1272	2.1711	2.0315	2.8671
0.9917	1.8621	2.2736	2.0324	2.1385	3.0180
1.0413	1.8342	2.3484	1.9216	2.2290	3.0225
1.0909	1.8242	2.3438	1.8461	2.2322	2.8735
1.1405	1.8402	2.2586	1.7749	2.2080	2.5667
1.1901	1.9020	2.1218	1.7407	2.1916	2.1913
1.2397	1.9827	1.9786	1.7289	2.2244	1.8705
1.2893	2.0545	1.8685	1.7652	2.2526	1.6816
1.3388	2.1098	1.8223	1.8330	2.2548	1.6383
1.3884	2.1244	1.8602	1.9127	2.1438	1.6777
1.4380	2.0871	1.9612	1.9810	1.9533	1.7229
1.4876	2.0299	2.0765	1.9861	1.7186	1.7177
1.5372	1.9766	2.1662	1.9085	1.4808	1.6668
1.5868	1.9137	2.2446	1.7677	1.2938	1.5908
1.6364	1.8768	2.2885	1.6142	1.1900	1.5003
1.6860	1.8668	2.2859	1.4768	1.1730	1.4099
1.7355	1.8480	2.2279	1.4404	1.2047	1.3315
1.7851	1.7979	2.1344	1.5636	1.2082	1.3034
1.8347	1.7195	2.0027	1.7942	1.2100	1.3091
1.8843	1.6285	1.8758	2.0671	1.2338	1.3445
1.9339	1.5595	1.7549	2.2531	1.2906	1.3947
1.9835	1.5333	1.6675	2.3277	1.3799	1.4254
2.0331	1.5377	1.6116	2.2303	1.5008	1.4220
2.0826	1.5302	1.5952	2.0013	1.6292	1.3768
2.1322	1.4970	1.6048	1.7244	1.7082	1.3032
2.1818	1.4529	1.6072	1.4546	1.7342	1.2331
2.2314	1.3979	1.5901	1.2543	1.7139	1.2098
2.2810	1.3454	1.5463	1.1832	1.6623	1.2308
2.3306	1.3128	1.4680	1.1753	1.5737	1.2785
2.3802	1.3260	1.3722	1.1760	1.4424	1.3179
2.4298	1.3613	1.2710	1.1613	1.2812	1.3267
2.4793	1.3730	1.1844	1.1259	1.1161	1.2871
2.5289	1.3233	1.1137	1.0538	0.9911	1.2223
2.5785	1.2142	1.0460	0.9538	0.9253	1.1408
2.6281	1.0780	0.9960	0.8470	0.9018	1.0418

Table H2: Concentration Spectra

Freq. (Hz)	69-3-c	60-3-c	51-3-c	45-3-c	36-3-c
2.6777	0.9619	0.9576	0.7560	0.9104	0.9416
2.7273	0.8782	0.9099	0.7027	0.9358	0.8684
2.7769	0.8273	0.8597	0.6943	0.9528	0.8202
2.8264	0.8012	0.8222	0.7211	0.9431	0.7951
2.8760	0.7970	0.8136	0.7582	0.9099	0.7833
2.9256	0.7881	0.8433	0.7787	0.8795	0.7781
2.9752	0.7613	0.8814	0.7691	0.8523	0.7799
3.0248	0.7221	0.9122	0.7305	0.8046	0.7697
3.0744	0.6823	0.9518	0.6693	0.7452	0.7391
3.1240	0.6449	0.9672	0.5977	0.6884	0.6911
3.1736	0.6067	0.9741	0.5344	0.6444	0.6209
3.2231	0.5594	0.9462	0.4714	0.6240	0.5481
3.2727	0.5100	0.8997	0.4175	0.6130	0.4771
3.3223	0.4650	0.8317	0.3786	0.6014	0.4240
3.3719	0.4268	0.7694	0.3670	0.5891	0.4027
3.4215	0.3960	0.7324	0.3753	0.5870	0.4244
3.4711	0.3762	0.7235	0.3955	0.5846	0.4705
3.5207	0.3681	0.7273	0.4132	0.5819	0.5177
3.5702	0.3764	0.7385	0.4190	0.5788	0.5433
3.6198	0.4026	0.7478	0.4186	0.5868	0.5415
3.6694	0.4412	0.7492	0.4088	0.6007	0.5161
3.7190	0.4826	0.7424	0.4017	0.6029	0.4741
3.7686	0.5160	0.7111	0.3942	0.5991	0.4318
3.8182	0.5336	0.6603	0.3929	0.5775	0.3945
3.8678	0.5296	0.6121	0.3914	0.5467	0.3685
3.9174	0.4964	0.5761	0.3931	0.5105	0.3567
3.9669	0.4447	0.5336	0.3812	0.4664	0.3454
4.0165	0.3947	0.4974	0.3655	0.4223	0.3282
4.0661	0.3632	0.4710	0.3458	0.3898	0.3140
4.1157	0.3534	0.4602	0.3262	0.3712	0.3089
4.1653	0.3534	0.4580	0.3064	0.3521	0.3089
4.2149	0.3450	0.4545	0.2986	0.3337	0.3115
4.2645	0.3274	0.4484	0.3003	0.3182	0.3135
4.3140	0.3020	0.4433	0.3129	0.3076	0.3122
4.3636	0.2716	0.4449	0.3340	0.3015	0.3041
4.4132	0.2447	0.4535	0.3562	0.3008	0.2889
4.4628	0.2278	0.4645	0.3677	0.3098	0.2671
4.5124	0.2210	0.4793	0.3626	0.3225	0.2423
4.5620	0.2209	0.4895	0.3387	0.3339	0.2193
4.6116	0.2294	0.4886	0.3008	0.3361	0.1999
4.6612	0.2440	0.4802	0.2600	0.3265	0.1836
4.7107	0.2595	0.4652	0.2263	0.3070	0.1741
4.7603	0.2683	0.4459	0.2024	0.2900	0.1723
4.8099	0.2665	0.4288	0.1959	0.2839	0.1771
4.8595	0.2559	0.4137	0.2087	0.2891	0.1864
4.9091	0.2396	0.4009	0.2367	0.3021	0.1984
4.9587	0.2262	0.3838	0.2758	0.3145	0.2111

Appendix I: Spectral Energy Peaks and Associated Frequencies

Table I1: Peaks in spectral energy and associated frequencies. u, v, and w refer to the streamwise, cross-stream and vertical velocity directions respectively. c refers to concentration.

Table I1: Peaks in spectral energy and associated frequencies

Measure-ment	u Peak Frequency (Hz)	Spectral Energy (cm^2 s^{-2})	v Peak Frequency (Hz)	Spectral Energy (cm^2 s^{-2})	w Peak Frequency (Hz)	Spectral Energy (cm^2 s^{-2})	c Peak Frequency (Hz)	Normalized Spectral Energy
12-18	0.85	124.75	1.90	99.07	2.20	72.86	1.25	1.99
12-27	1.20	92.28	2.40	105.82	2.05	065.23	0.95	2.58
12-36	1.65	111.48	1.90	180.81	1.65	68.26	0.95	2.07
12-45	0.90	151.86	1.50	124.41	2.25	82.04	1.55	2.00
12-51	1.40	157.62	1.90	127.96	1.65	65.51	0.90 & 1.70	2.67 & 2.33
12-60	1.05	125.46	1.90	111.20	1.40	56.42	1.15	2.60
12-69	0.70	96.85	1.85	84.71	2.35	54.16	1.00	2.90
12-75	1.55	92.89	2.05	100.85	1.60	54.17	0.75 & 1.25	2.57 & 2.43
9-18	0.80	187.73	2.00	123.86	2.05	95.97	0.85 & 1.40	1.90 & 1.84
9-27	1.55	135.43	1.35	92.24	2.10	66.90	1.40	2.47
9-36	0.80	207.55	1.85	152.86	2.20	84.00	1.00 & 1.65	2.16 & 2.29
9-45	1.25	165.22	1.40	105.33	2.55	71.28	1.55	2.18
9-51	1.00	204.40	1.30	110.51	2.15	86.56	0.50 & 1.15	2.10 & 2.213
9-60	0.80	191.65	3.05	123.59	2.80	79.71	1.00	2.93
9-69	1.55	189.07	3.75	110.37	1.80	82.77	0.55	2.03
9-75	0.90 & 2.20	151.68 & 152.51	1.40	129.15	3.88	87.04	1.00	2.24
6-18	2.05	195.75	1.65	142.72	3.70	78.95	1.35	2.98
6-27	1.85	278.71	3.50	257.38	3.40	100.98	1.25	2.09
6-36	1.65	309.73	2.80	216.39	2.65	153.10	0.60 & 1.45	2.40 & 2.50
6-45	1.85	309.76	2.80	170.18	3.80	121.93	1.10	2.41
6-51	0.95 & 3.05	332.47 & 283.07	2.05	190.34	3.10	146.58	1.00-2.10	1.90
6-60	1.25	219.29	3.00	140.32	2.49	82.49	1.05 & 1.70	2.22 & 2.25
6-69	2.20	133.85	2.35	109.05	4.70	51.98	0.65 & 1.50	2.09 & 2.33
6-75	0.95	153.18	2.20	147.32	2.90	61.36	0.70 & 1.20	1.40 & 1.56
3-36	1.85	194.80	1.55	253.18	4.25	58.25	1.05	3.02
3-45	1.00	294.21	2.35	162.03	2.80	134.99	1.35	2.25
3-51	1.35	418.91	2.20	288.35	2.40	161.39	0.70 & 2.00	2.26 & 2.32
3-60	3.05 & 1.65	807.46	5.00	448.70	3.05	400.07	1.05-2.00	2.35
3-69	1.00-4.00	498.88	4.25	334.31	3.90	253.21	0.75	2.30

Appendix J: Autocorrelation Functions

Figure J1: Autocorrelation functions (ACF) used to determine the integral scales. ACF is a correlation coefficient and therefore has no units. u, v, and w refer to the streamwise, cross-stream and vertical velocity directions respectively. c refers to concentration. Numbers at top of panels indicate the height above the dune trough, streamwise distances along working section (see Figure 2), and the concentration or velocity component (i.e. 12-75c means 12 cm above the dune trough, 75 cm along the working section, and that this is a concentration autocorrelation).

Figure J1: Autocorrelation Functions

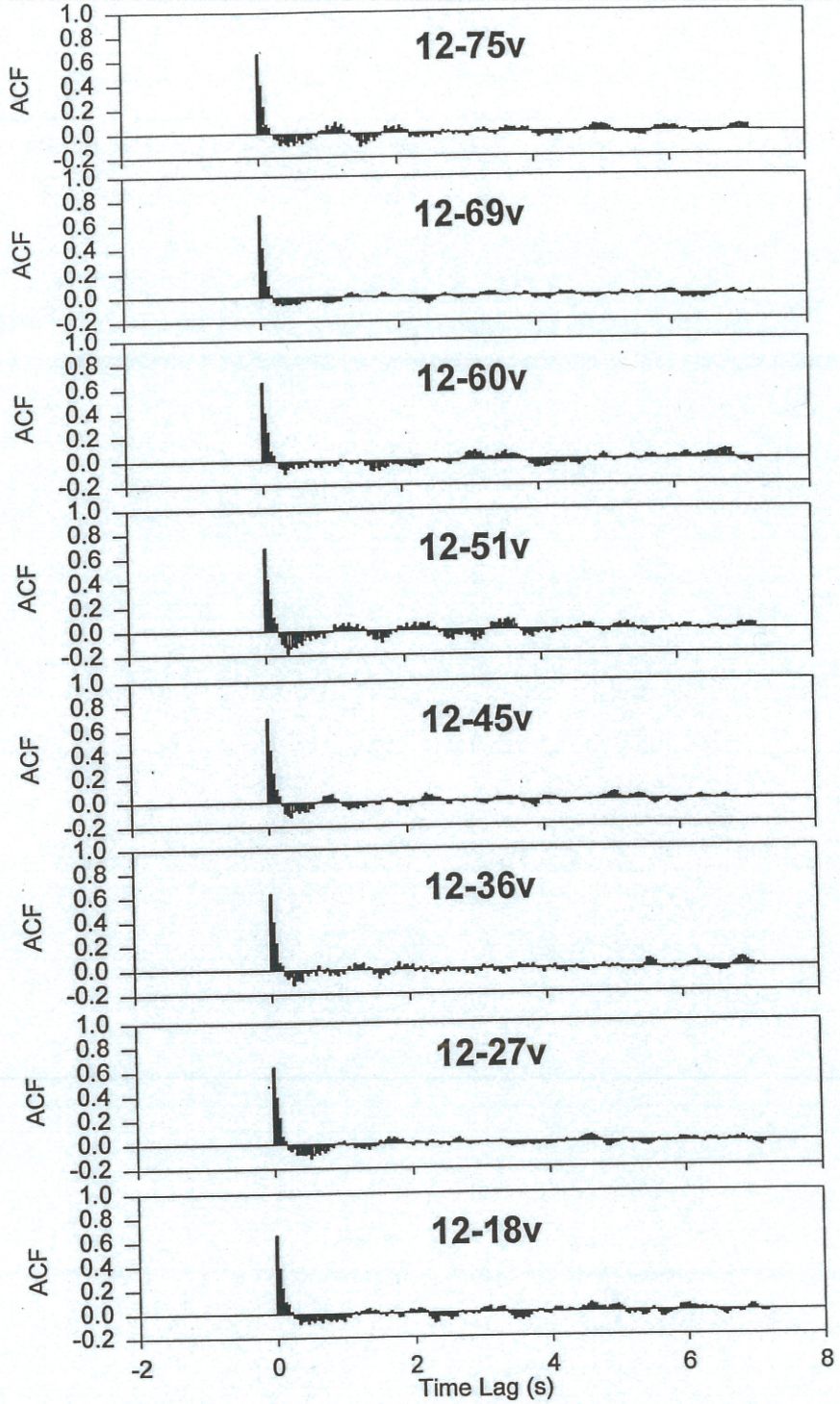


Figure J1: Autocorrelation Functions

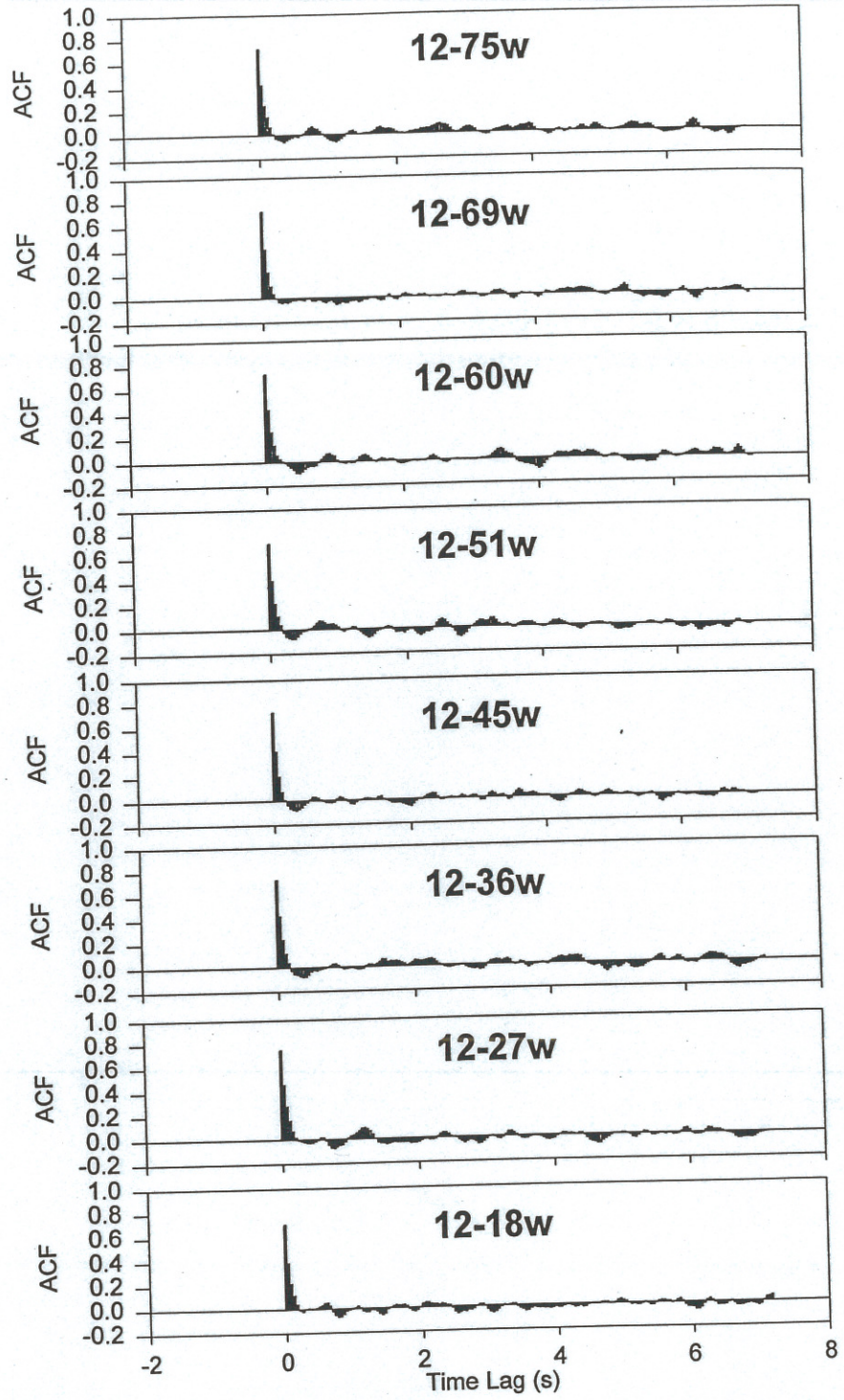


Figure J1: Autocorrelation Functions

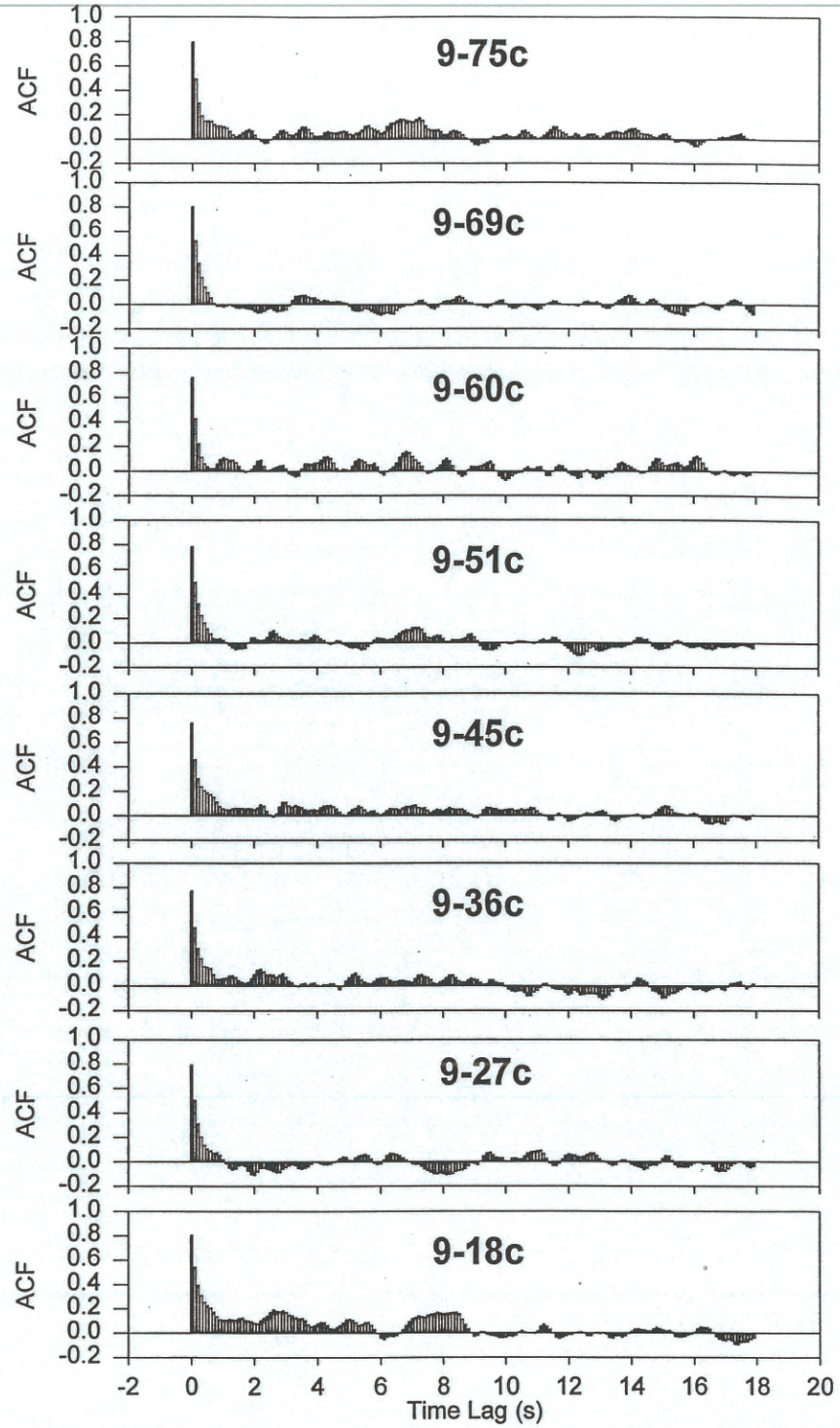


Figure J1: Autocorrelation Functions

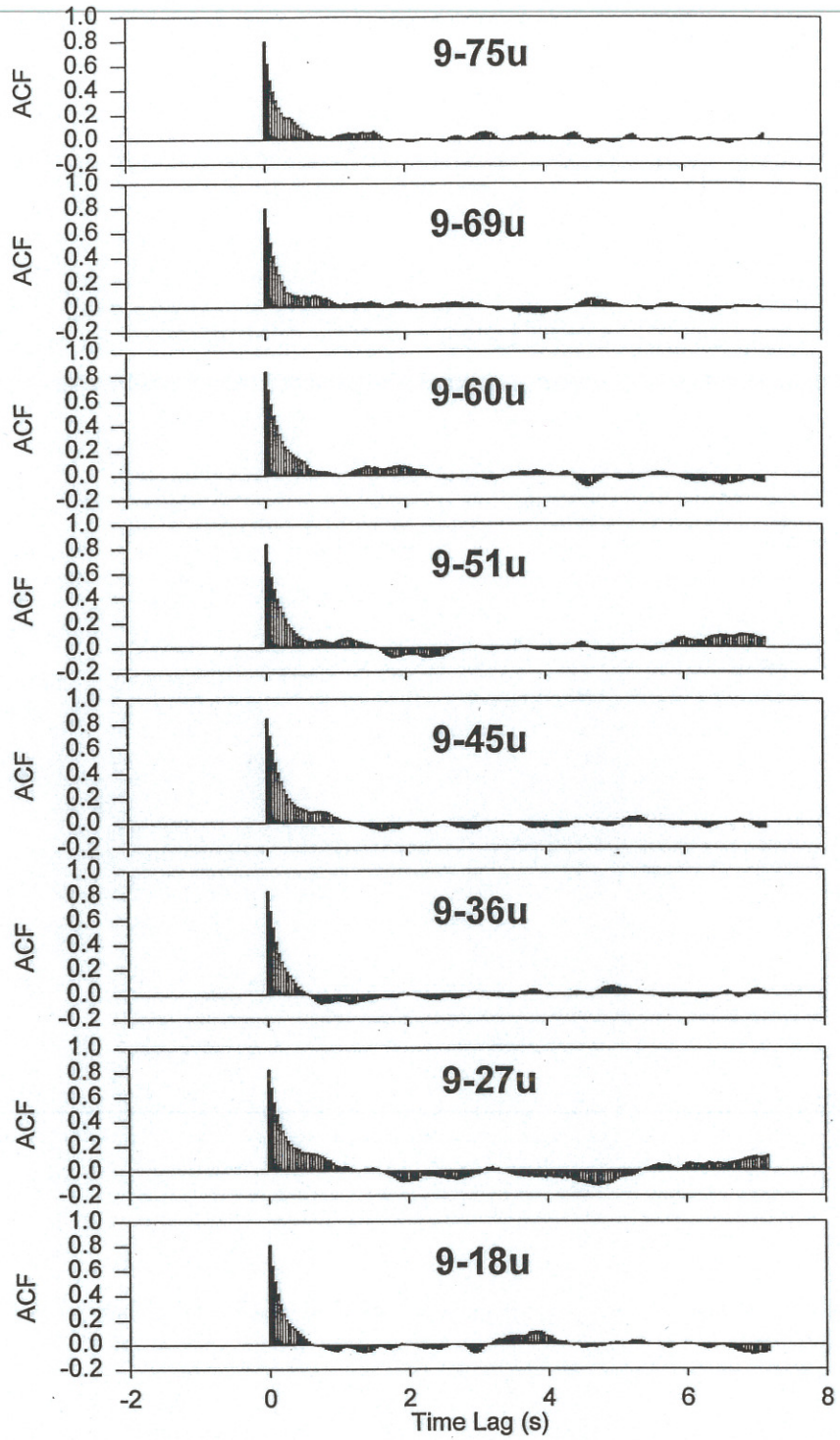


Figure J1: Autocorrelation Functions

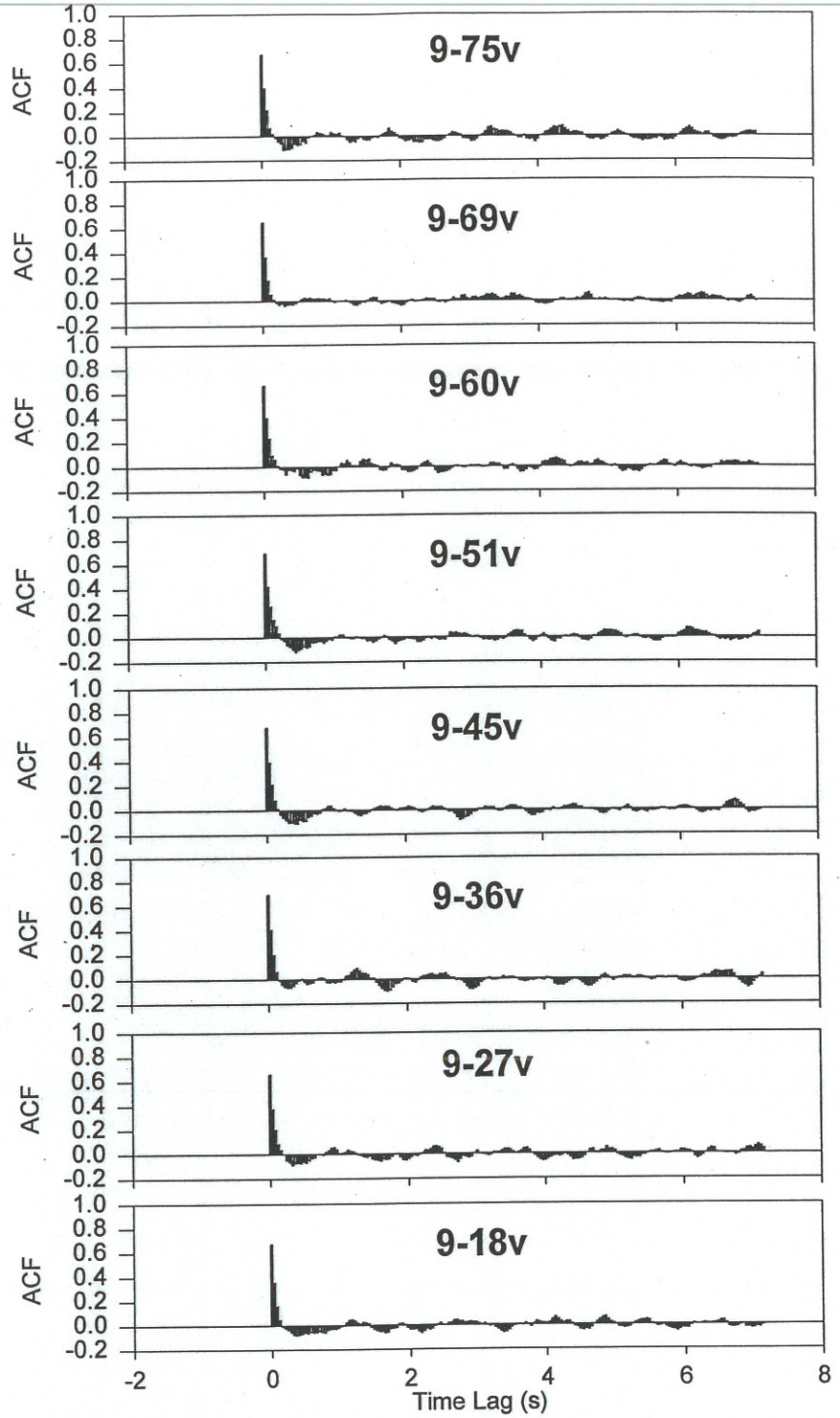


Figure J1: Autocorrelation Functions

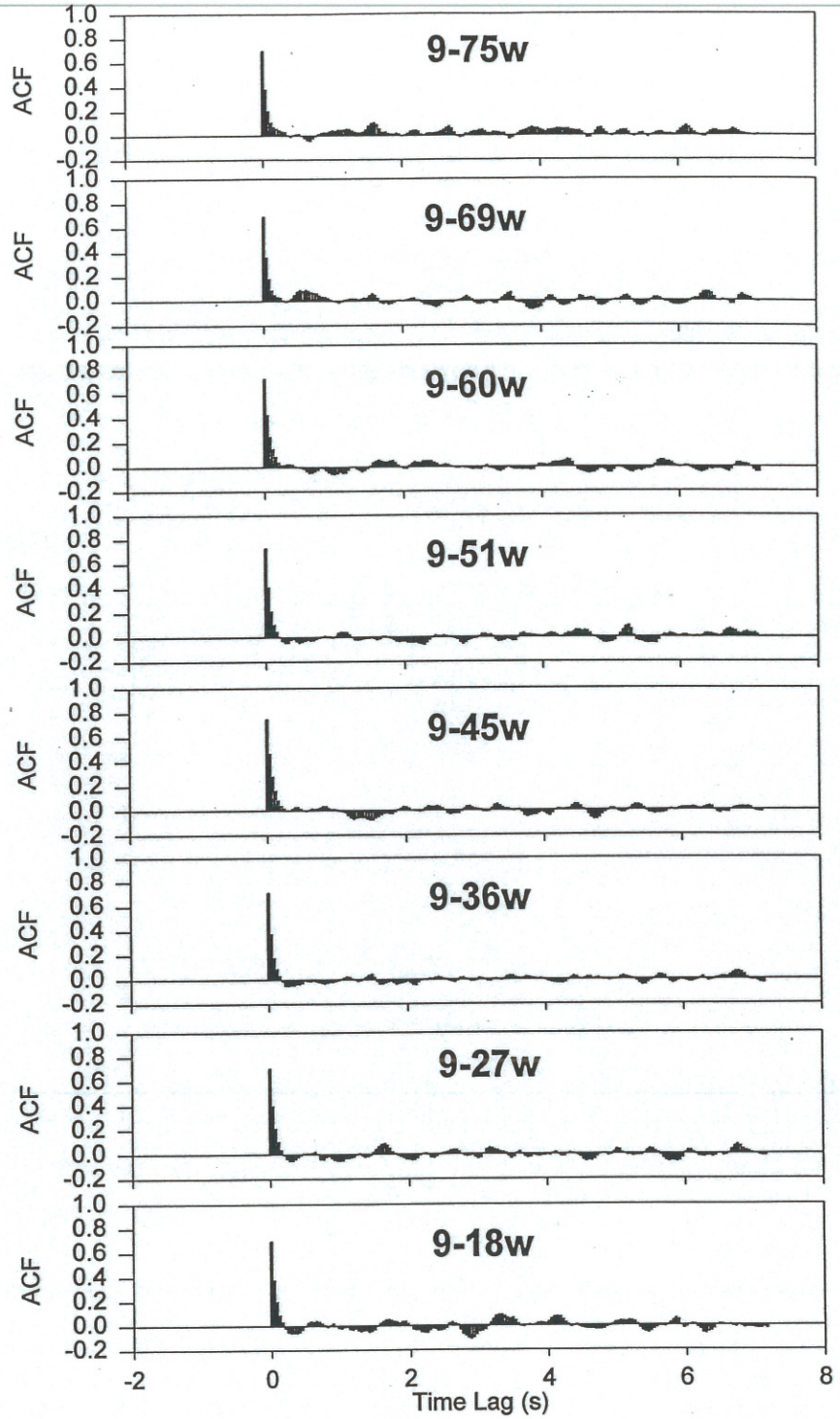


Figure J1: Autocorrelation Functions

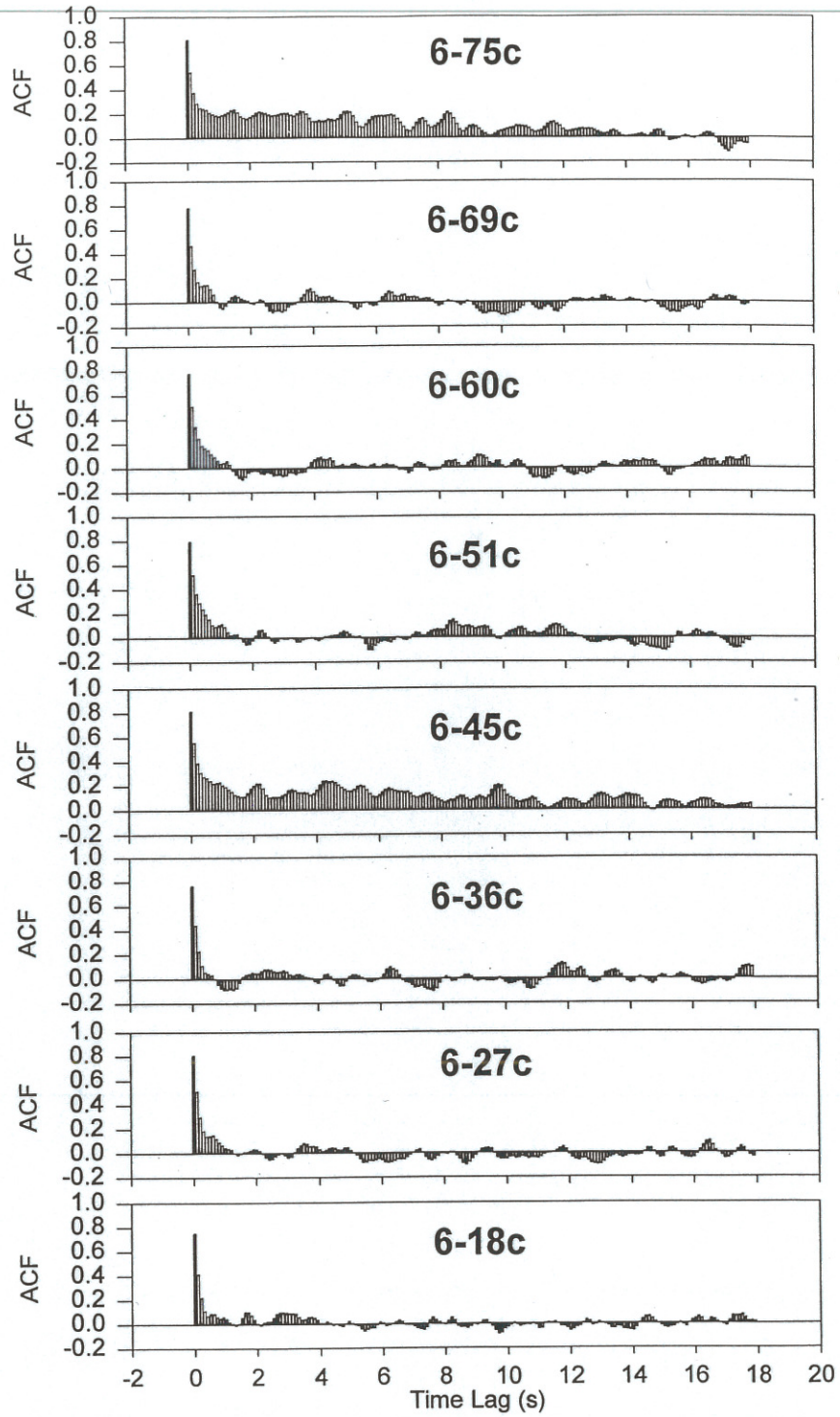


Figure J1: Autocorrelation Functions

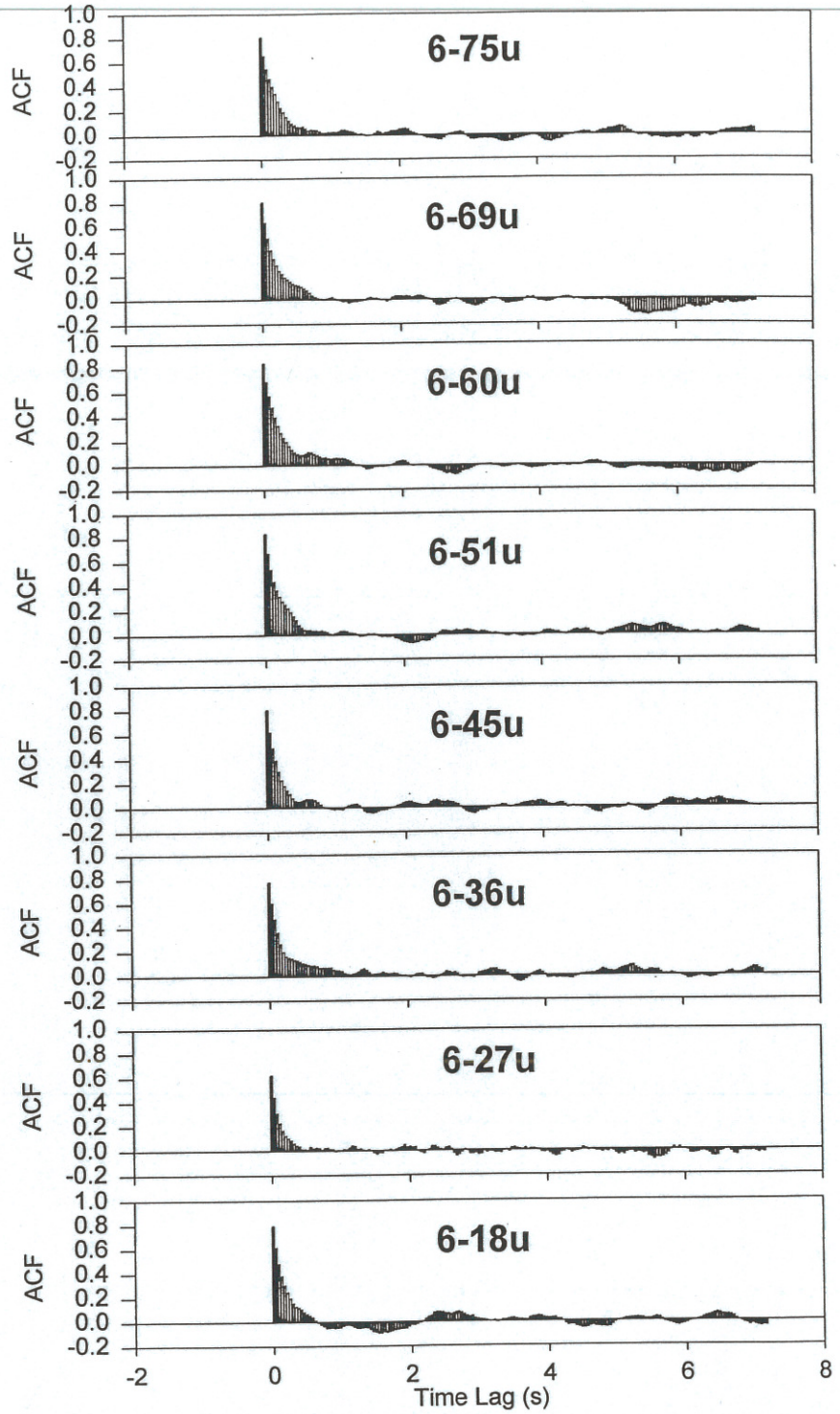


Figure J1: Autocorrelation Functions

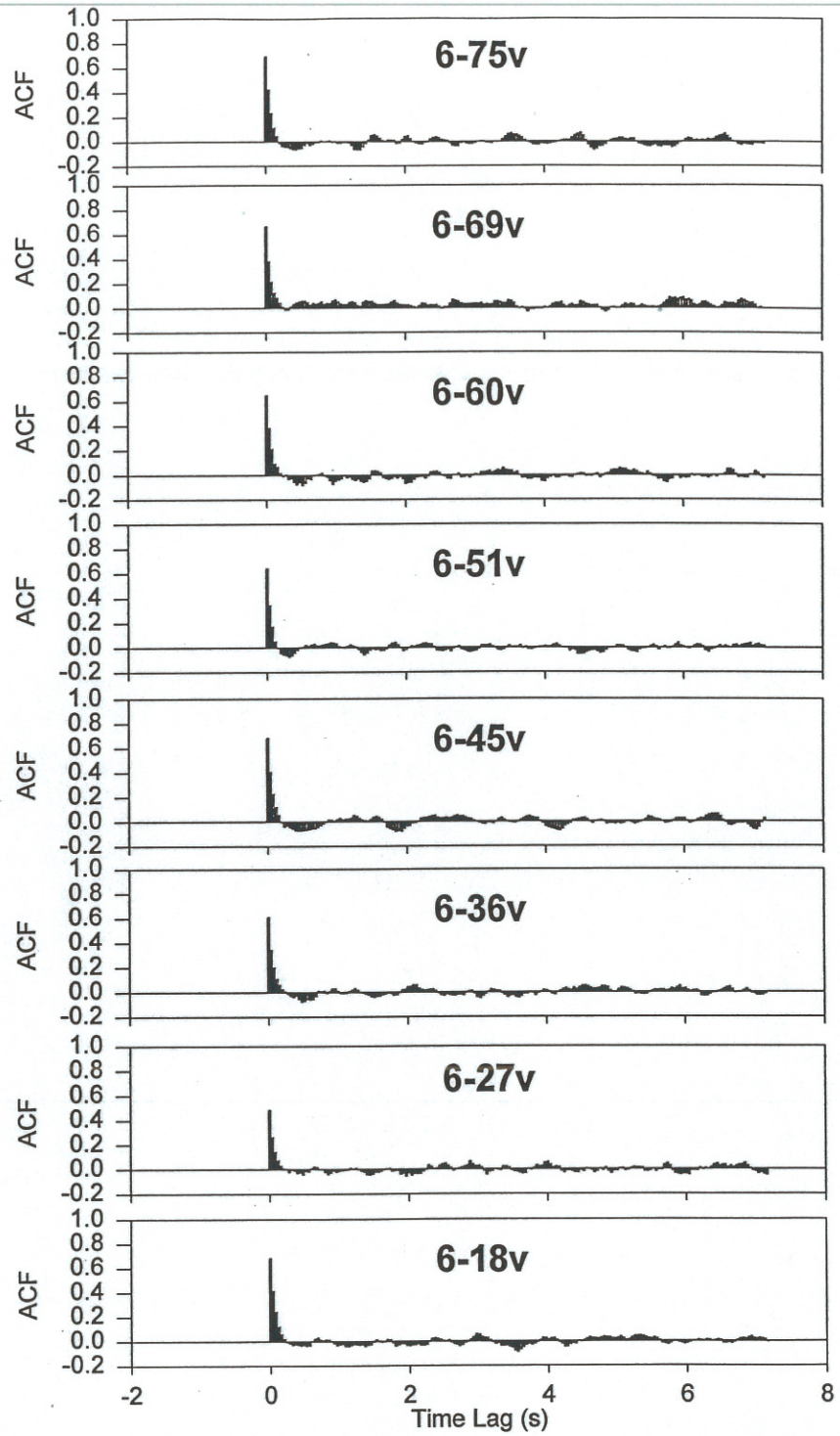


Figure J1: Autocorrelation Functions

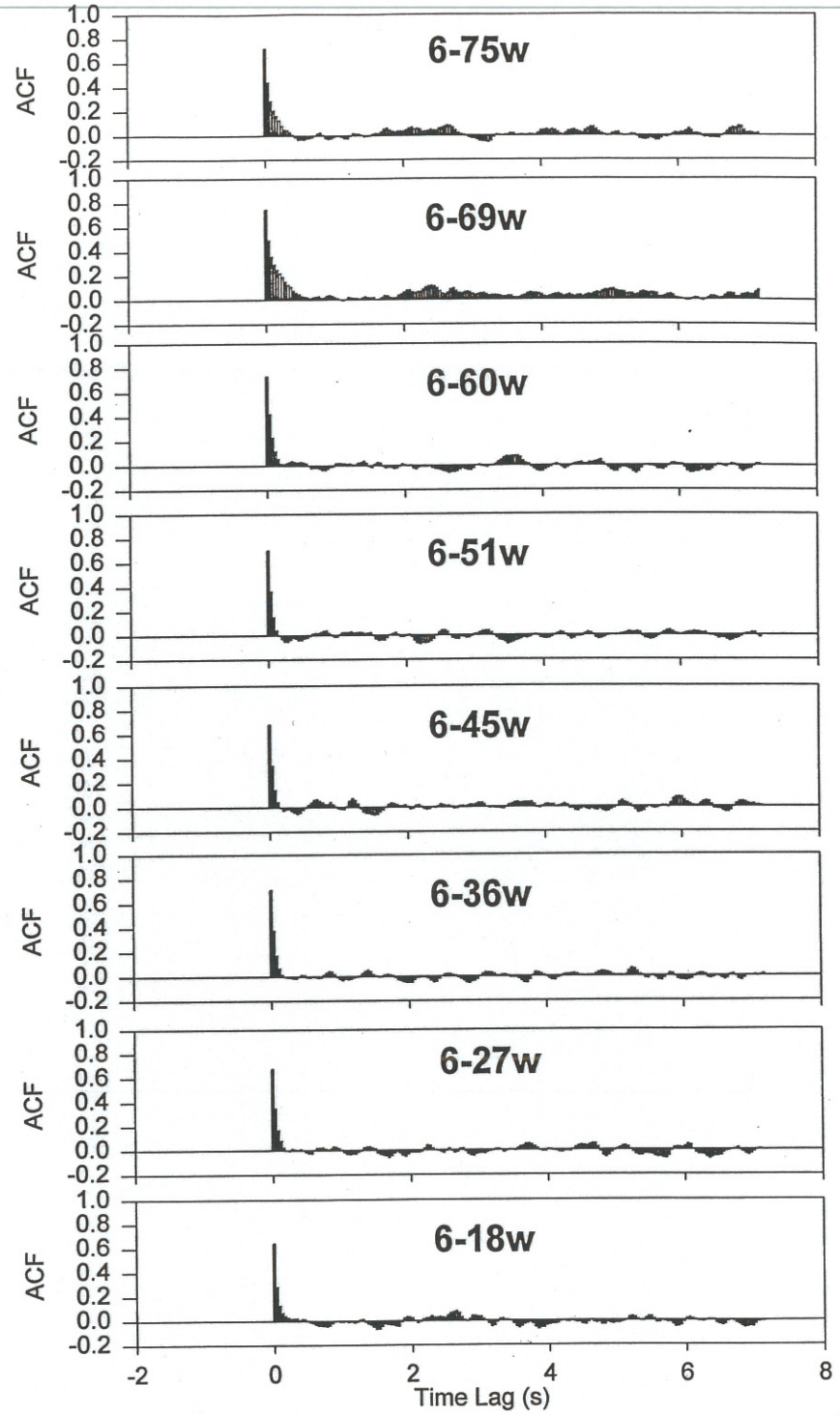


Figure J1: Autocorrelation Functions

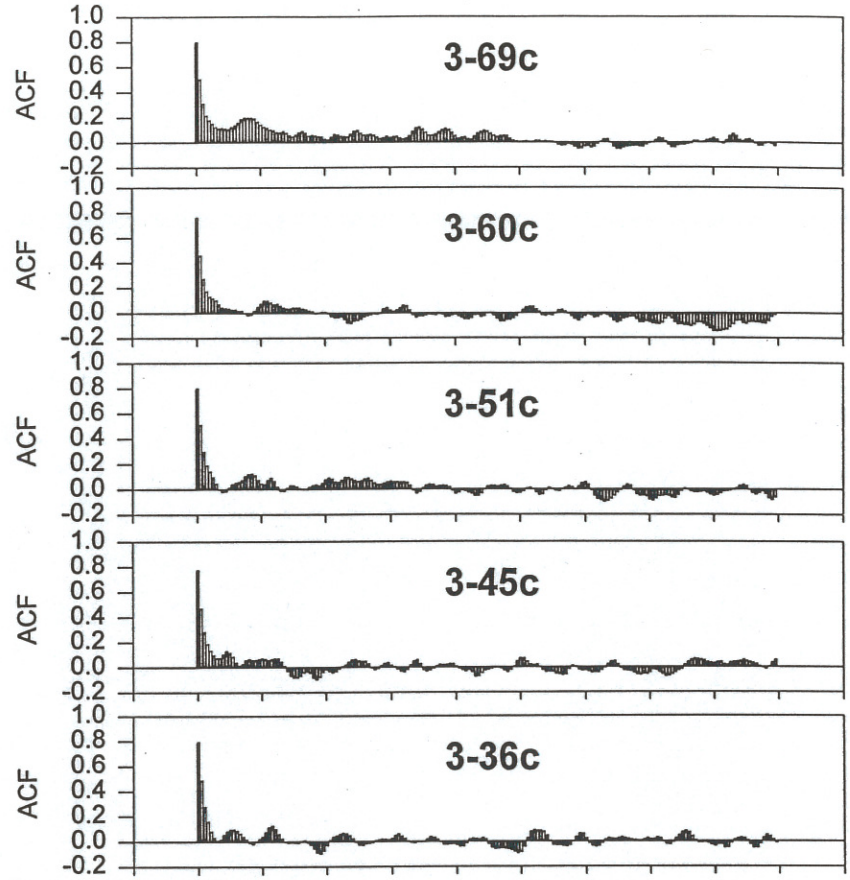


Figure J1: Autocorrelation Functions

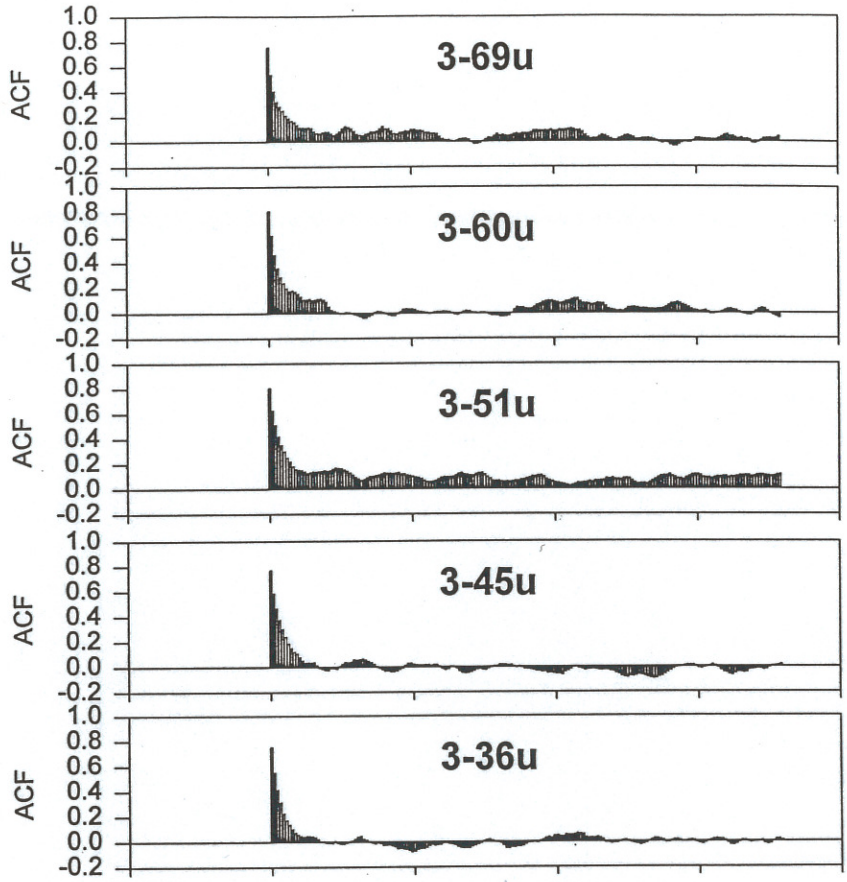


Figure J1: Autocorrelation Functions

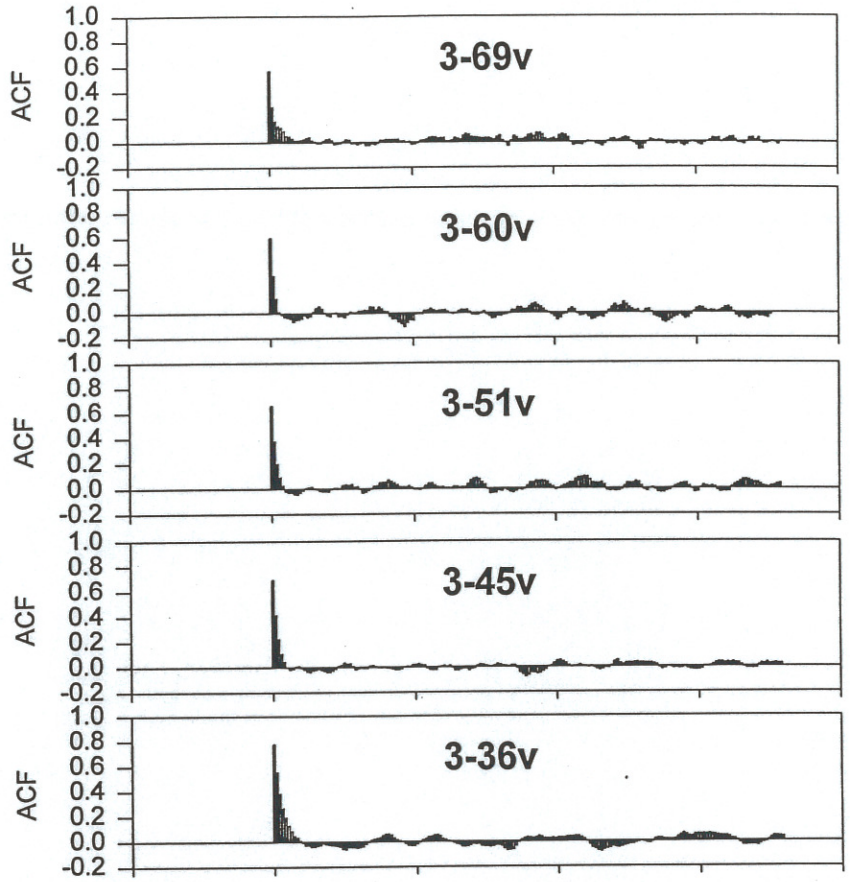


Figure J1: Autocorrelation Functions

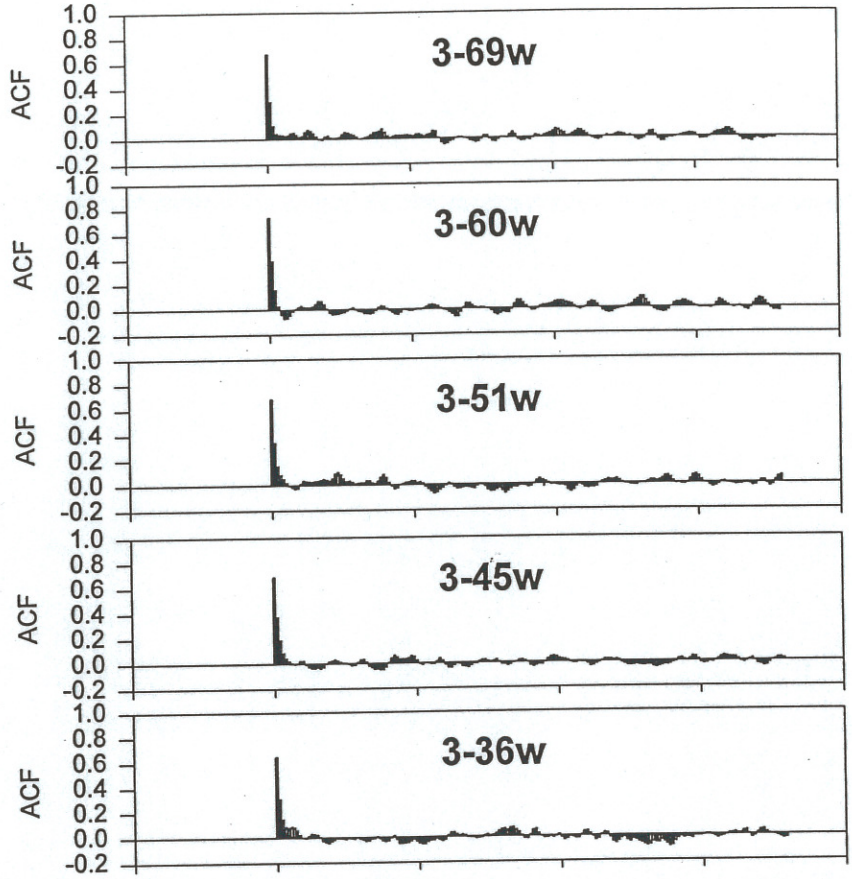
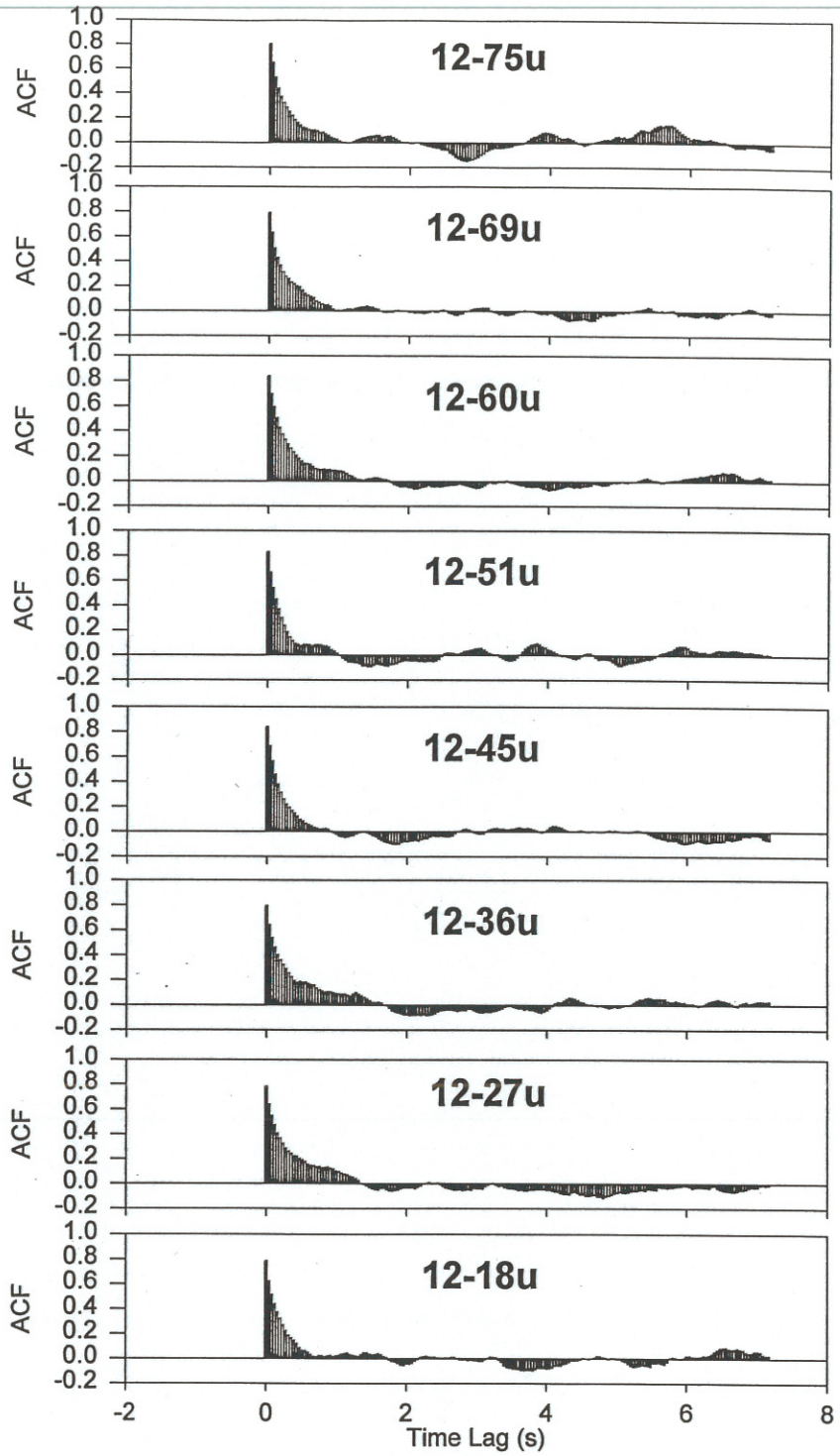


Figure J1: Autocorrelation Functions



Appendix K: Eulerian Integral Scale Moments

Table K1: Raw values of the integral scales calculated from the autocorrelations. NSM means that the file had a non-stationary mean. ITS is the Eulerian integral time scale and ILS is the Eulerian integral length scale. x is the streamwise distance through the working section and z is the height above the datum in the dune trough (see Figure 2). U, V, and W refer to the streamwise, cross-stream and vertical velocity directions respectively. C refers to concentration.

Table K2: Eulerian Integral Scale Moments. ITS is the Eulerian integral time scale and ILS is the Eulerian integral length scale. z is the height above the datum in the dune trough (see Figure 2). U, V, and W refer to the streamwise, cross-stream and vertical velocity directions respectively. C refers to concentration.

Table K1: Raw Integral Time Scales

x	z	Mean U	ITS U	ITS V	ITS W	ITS C	ILS U	ILS V	ILS W	ILS C
75	12	0.6154	0.2197	0.0569	0.0645	0.1876	0.1352	0.0350	0.0397	0.1154
69	12	0.5979	0.2199	0.0578	0.0596	0.3543	0.1315	0.0346	0.0356	0.2118
60	12	0.5760	0.2764	0.0579	0.0658	0.2390	0.1592	0.0333	0.0379	0.1377
51	12	0.5416	0.2010	0.0626	0.0601	0.2109	0.1089	0.0339	0.0326	0.1142
45	12	0.5157	0.1962	0.0620	0.0572	NSM	0.1012	0.0320	0.0295	NSM
36	12	0.5789	0.3058	0.0544	0.0620	0.2675	0.1770	0.0315	0.0359	0.1549
27	12	0.5914	0.2963	0.0540	0.0696	0.3502	0.1752	0.0320	0.0411	0.2071
18	12	0.6189	0.1816	0.0585	0.0583	0.3559	0.1124	0.0362	0.0361	0.2203

x	z	Mean U	ITS U	ITS V	ITS W	ITS C	ILS U	ILS V	ILS W	ILS C
75	9	0.5934	0.1836	0.0547	0.0650	0.3237	0.1090	0.0325	0.0386	0.1921
69	9	0.5642	0.2358	0.0503	0.0577	0.2205	0.1330	0.0284	0.0326	0.1244
60	9	0.5397	0.2179	0.0586	0.0715	0.2343	0.1176	0.0316	0.0386	0.1265
51	9	0.5096	0.2388	0.0656	0.0601	0.2319	0.1217	0.0335	0.0306	0.1182
45	9	0.5218	0.2361	0.0553	0.0720	0.3606	0.1232	0.0289	0.0376	0.1882
36	9	0.5360	0.1603	0.0546	0.0556	0.4155	0.0859	0.0293	0.0298	0.2227
27	9	0.5801	0.2579	0.0545	0.0584	0.2386	0.1496	0.0316	0.0339	0.1384
18	9	0.5776	0.1604	0.0492	0.0558	NSM	0.0926	0.0284	0.0323	NSM

x	z	Mean U	ITS U	ITS V	ITS W	ITS C	ILS U	ILS V	ILS W	ILS C
75	6	0.5630	0.2074	0.0603	0.0864	NSM	0.1167	0.0339	0.0486	NSM
69	6	0.5451	0.1896	0.0610	0.1368	0.2305	0.1034	0.0333	0.0746	0.1256
60	6	0.5025	0.2336	0.0568	0.0718	0.2828	0.1174	0.0286	0.0361	0.1421
51	6	0.4694	0.1946	0.0484	0.0504	0.3203	0.0913	0.0227	0.0237	0.1503
45	6	0.4659	0.1576	0.0599	0.0486	NSM	0.0734	0.0279	0.0226	NSM
36	6	0.4585	0.1872	0.0547	0.0542	0.1687	0.0858	0.0251	0.0248	0.0773
27	6	0.5002	0.0949	0.0402	0.0522	0.2648	0.0475	0.0201	0.0261	0.1325
18	6	0.5688	0.1511	0.0616	0.0519	0.1988	0.0860	0.0351	0.0295	0.1131

x	z	Mean U	ITS U	ITS V	ITS W	ITS C	ILS U	ILS V	ILS W	ILS C
69	3	0.3073	0.2983	0.0664	0.0674	NSM	0.0917	0.0204	0.0207	NSM
60	3	0.3135	0.1933	0.0410	0.0524	0.2291	0.0606	0.0129	0.0164	0.0718
51	3	0.3640	NSM	0.0544	0.0532	0.2076	NSM	0.0198	0.0194	0.0756
45	3	0.3841	0.1438	0.0595	0.0565	0.2577	0.0552	0.0229	0.0217	0.0990
36	3	0.4350	0.1233	0.0993	0.0610	0.2370	0.0536	0.0432	0.0265	0.1031

Table K2: Integral Scale Moments

C ILS

z	Mean	Std Dev	Std. Error	Range	Max	Min
12	0.166	0.0464	0.0175	0.106	0.22	0.114
9	0.159	0.0415	0.0157	0.105	0.223	0.118
6	0.123	0.026	0.0106	0.073	0.15	0.0773
3	0.0874	0.0159	0.00797	0.0313	0.103	0.0718

C ITS

z	Mean	Std Dev	Std. Error	Range	Max	Min
12	0.281	0.0723	0.0273	0.168	0.356	0.188
9	0.289	0.0773	0.0292	0.195	0.415	0.221
6	0.244	0.056	0.0228	0.152	0.32	0.169
3	0.233	0.0207	0.0104	0.0501	0.258	0.208

U ILS

z	Mean	Std Dev	Std. Error	Range	Max	Min
12	0.138	0.0299	0.0106	0.0758	0.177	0.101
9	0.117	0.0207	0.00732	0.0637	0.15	0.0859
6	0.0902	0.0232	0.0082	0.0699	0.117	0.0475
3	0.0653	0.0178	0.00892	0.038	0.0917	0.0536

U ITS

z	Mean	Std Dev	Std. Error	Range	Max	Min
12	0.237	0.0484	0.0171	0.124	0.306	0.182
9	0.211	0.0381	0.0135	0.0976	0.258	0.16
6	0.177	0.0422	0.0149	0.139	0.234	0.0949
3	0.19	0.0782	0.0391	0.175	0.298	0.123

V ILS

z	Mean	Std Dev	Std. Error	Range	Max	Min
12	0.0336	0.00168	0.000594	0.00473	0.0362	0.0315
9	0.0305	0.002	0.000708	0.00506	0.0335	0.0284
6	0.0283	0.0055	0.00194	0.015	0.0351	0.0201
3	0.0238	0.0115	0.00512	0.0303	0.0432	0.0129

V ITS

z	Mean	Std Dev	Std. Error	Range	Max	Min
12	0.058	0.00311	0.0011	0.0086	0.0626	0.054
9	0.0554	0.00508	0.0018	0.0164	0.0656	0.0492
6	0.0554	0.00755	0.00267	0.0215	0.0616	0.0402
3	0.0641	0.0218	0.00973	0.0583	0.0993	0.041

W ILS

z	Mean	Std Dev	Std. Error	Range	Max	Min
12	0.0361	0.00374	0.00132	0.0116	0.0411	0.0295
9	0.0342	0.00356	0.00126	0.00882	0.0386	0.0298
6	0.0358	0.0179	0.00633	0.0519	0.0746	0.0226
3	0.0209	0.00369	0.00165	0.0101	0.0265	0.0164

W ITS

z	Mean	Std Dev	Std. Error	Range	Max	Min
12	0.0621	0.00421	0.00149	0.0124	0.0696	0.0572
9	0.062	0.0067	0.00237	0.0164	0.072	0.0556
6	0.069	0.0304	0.0107	0.0882	0.137	0.0486
3	0.0581	0.00619	0.00277	0.015	0.0674	0.0524