All data is stored in the mat (MATLAB) files. Variable names include the associated figure number; the variables in the multi-plot figures are labeled either as top, middle, bottom, left, and right or as (a),(b),(c) according to their position in the figure.

Multi-cell variables: each cell denotes the panels in figures.
For example:
In fig2bot_UW{i}{j}, i denotes each time stamp and j=1, 2, 3, 4 denote x, y, u, w.

Abbreviations regarding the variables in the supplementary dataset are:
F: outflow fraction
RI: Richardson number
RE: Reynolds number
RO: Rossby number
FR: Froude number

VE: Entrainment velocity [m/s]
U, V, W: current velocity in x, y, z directions [m/s].
T: time [s]
L: length [km]

ACCEL, ADV, PRSGRD, MIX, MIX_Z are defined as in Eq1 [m/s^2].
X and Y denote the grid associated with the variable.
'along' and 'lateral' stand for along-centerline and cross-centerline, respectively.
DOWN/UP (downcoast/upcoast) and OFF (offshore) are the distances associated with the plume AREA.