



Figure 1 Airplane's flightpath from ADS-B data.

|                                                 | Weight (lbs)    | Arm (in)      | Moment              |
|-------------------------------------------------|-----------------|---------------|---------------------|
| Empty Weight and CG                             | 4,926.80        | 131.79        | 649,302.97          |
| Fuel - front tank                               | 415.40          | 121.00        | 50,263.40           |
| Fuel - center tank                              | 683.40          | 154.00        | 105,243.60          |
| Fuel - aft tank                                 | 134.00          | 184.00        | 24,656.00           |
| Pilot                                           | 259.00          | 98.00         | 25,382.00           |
| Front right seat passenger                      | 211.00          | 98.00         | 20,678.00           |
| First row right seat passenger                  | 186.00          | 137.00        | 25,482.00           |
| First row left seat passenger                   | 200.00          | 137.00        | 27,400.00           |
| Second row right seat passenger                 | 238.00          | 165.00        | 39,270.00           |
| Second row left seat passenger                  | 225.00          | 165.00        | 37,125.00           |
| Third row right seat passenger                  | 180.00          | 195.00        | 35,100.00           |
| Third row left seat passenger                   | 0.00            | 195.00        | 0.00                |
| Fourth row right seat passenger (and Start Pac) | 257.00          | 218.00        | 56,026.00           |
| Fifth row right seat                            | 210.00          | 250.00        | 52,500.00           |
| Fifth row left seat                             | 290.00          | 250.00        | 72,500.00           |
| Baggage                                         | 460.00          | 286.00        | 131,560.00          |
| <b>TOTALS</b>                                   | <b>8,875.60</b> | <b>152.38</b> | <b>1,352,488.97</b> |

Table 1 Summary of weight and balance calculations.

| <b>Role</b> | <b>Gender</b> | <b>Injury Severity</b> | <b>Seating location</b> | <b>Restraints Used/type</b> |
|-------------|---------------|------------------------|-------------------------|-----------------------------|
| Pilot       | Male          | Serious                | Left front              | 4-point                     |
| Passenger   | Male          | Fatal                  | Right front             | 4-point                     |
| Passenger   | Male          | Serious                | Left first row          | Lap belts                   |
| Passenger   | Male          | Fatal                  | Right first row         | Lap belts                   |
| Passenger   | Male          | Serious                | Left second row         | Lap belts                   |
| Passenger   | Male          | Fatal                  | Right second row        | Lap belts                   |
| Passenger   | Male          | Serious                | Right third row         | Lap belts                   |
| Passenger   | Male          | Serious                | Right fourth row        | Lap belts                   |
| Passenger   | Male          | Minor                  | Left fifth row          | Lap belts                   |
| Passenger   | Male          | Minor                  | Right fifth row         | Lap belts                   |

**Table 2 List of pilot and passenger injuries.**