

## International (FAA 121.645 Flag rules) Flight Planning w/ FSBUILD 2.0 (by Marc Brodbeck)

Running a International Flt plan from KJFK to TJSJ (San Juan, PR), using FSB2 w/ the **A320-200 w/ V2527-A5**. Start up FSBUILD 2.0 now. I'm assuming some real world wx is going to be used to the fly in Flt Sim, so I'll also load up the internet Aviation Wx Center site, <http://aviationweather.gov/hilvl/> check out the route/wx.

You will be greeted by the main planning window screen of FSB2. Below is the AIRCRAFT screen from step 1 through 14.

The screenshot shows the FSBUILD 2.0 interface. At the top, the DEPARTURE field is set to KJFK (New York John F. Kennedy) and the DESTINATION is TJSJ (San Juan Luis Muñoz Marín). The flight plan is KJFK..SHIPP..LINND..DIDLE..WAYDE.A300.PLING.RTE7.SJU..TJSJ. The aircraft selected is A320-200 w/ V2527-A5. The TAKEOFF section shows a departure from KJFK at an elevation of 10 feet and a temperature of 17 degrees Celsius. The aircraft's gross weight is 152891 lbs and the flaps are set to 1+F. The landing gear is set to FULL and the VREF is 130. The Wt Unit is set to LBS. The Taxi Fuel is set to :20, Reserve is %10, and Empty WT is 97800. The Payload WT is 31500 and the Avg Route Winds (kts) is -10.

1. Select the **Aircraft** File Folder, from Folder Items on the left hand side, select the **A320-200 w/ V2527-A5** from the Aircraft pull down menu.
2. Go up to the top and type in **KJFK** to Departure and **TJSJ** for Destination. <http://adds.aviationweather.noaa.gov/> and review the METAR/TAF for KJFK and TJSJ.

*KJFK 060050Z 25008KT 10SM CLR 17/02 A2995 RMK AO2 SLP141 T01720022*

*TJSJ 052325Z 060024 26010KT P6SM SKC  
FM0300 VRB03KT P6SM SKC  
FM2100 24009KT P6SM SKC=*

3. Enter the correct wx data into the Aircraft Screen to produce the correct Takeoff and Landing data (TOLD).
4. Will use **Wt units** in LBS, feel free to change to KGS.
5. Let's now enter, **Taxi, Reserve, Alternate, Hold, and Extra Fuel**. For **Taxi fuel**, plan **:20 minutes (leaving this blank, FSB2 will select the avg. taxi time for this station based on historical data, if the data exists)**, for large airports, less for smaller ones.  
For US based intl. flights, use **%10 for RESERVE fuel**.

6. For intl. flts >6hrs an alternate is required. FSB2 will automatically run a fuel burn to the Alternate (a minimum of :15 fuel is used to the alternate). If the flight time is less than 6hrs and the wx at San Juan is planned to be clear, no need to add an alternate.
7. For intl. flts **:30 min** hold is required for reserves. For any expected wx deviations or additional ATC delays you may add **EXTRA** fuel.
8. Add a flight **Callsign** for ATC.
9. **Empty weight**, is the standard weight for the aircraft with no payload or fuel onboard, just the seats, flt crew, and normal onboard equipment (water, catering, etc.).
10. **Payload weight**, is the weight of the passengers + cargo. I use an average passenger wt of 220 lbs. or 100 kgs. 150 passengers \* 210 lbs. = 31,500 lbs.
11. And from the [http://aviationweather.gov/hilvl/graf/pgie07\\_06\\_cl.gif](http://aviationweather.gov/hilvl/graf/pgie07_06_cl.gif) Derive an **avg. route winds** speed estimate to plug in and get a more accurate time/burn result. I'm going to use -10 kts for this sample (for a 10kts headwind, if you want to make a tailwind, remove the (-) minus sign, eg 10).
12. Build our route now, I'm going to use a pre-planned route, and cut/paste into the FSB2 Flight Plan window.  
**KJFK..SHIPP..LINND..DIDLE..WAYDE.A300.PLING.RTE7.SJU..TJSJ**, Paste the following rte into the Flight Plan window and click build.
13. Before leaving the **AIRCRAFT** folder screen, click **Show Tkooff/Lndg speeds** to run the TOLD data and paste to the bottom of the **Navlog** flt plan.
14. Go to the **ROUTE** folder and review the **Navlog** tab, this is the flight plan produced.

**Navlog Fuel Plan example:**

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FSBUILD FLIGHT PLAN
FLT REL IFR FSB3   KJFK/TJSJ MACH 80  A/C  A320-200 W/ V2527-A5
      FUEL  TIME    CORR   TOGWT   LDGWT   AVG W/C
TAXI      000500 0020   . . . . 152891   133900  M009
DEST TJSJ 018992 0319   . . . .
RESV      001899 0021   . . . .
ALTN      000000 0000   . . . .  ALTN    DIST  0
HOLD      002701 0030   . . . .
EXTRA     000000 0000   . . . .  ZFW 129300      PAYLOAD 031500
TTL AT TO 023591 0410   . . . .      DIST 1412
REQD      024091 0420   . . . .

CLB BIAS 0.0 %  CRZ BIAS 0.0 %  DSC BIAS 0.0 %

KJFK..SHIPP..LINND..DIDLE..WAYDE.A300.PLING.RTE7.SJU..TJSJ/0319

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