

*Simulation of a flight from  
Hiva Oa island to Tahiti aboard  
"Jojo", Jacques Brel's F-ODBU  
Twin Bonanza. Made with  
Microsoft Flight Simulator  
2004 (R)*

Atuona 08/03/2006 06:25

Quietly parked in front of the gasoline pump, "Jojo" waits for her big breakfast, filling up with enough energy to fly to Tahiti., 775 Nm (nautiques milles) away, or a 4 hrs and 18 min flight. We will successively fly over the Takaroa atoll (2:30 hrs), Kaukura (43 min) then, we will see Tahiti coming up the horizon. Weather is perfect (cavok) nothing can be better.



As I prepare to fill the second tank, the doctor's car approaches bring a me a gracious

local lady who must go to the Papeete Hospital for diagnostic. I want to revive this flight in Jacques' tradition, let's Jojo fly with as much realism as in the past..

I can feel that my passenger, despite the fact that she has heard about such a trip by all those who have made it with Jacques, is a little stressed; at 65 it's her first fly. I push Jojo off the refueling area and take the lady with me to perform the preflight visit. I explain her the major aircraft elements to grow more confidence, then, the doctor and I install her in one of the back seats. Her son, who will fly with us, will be seating on the front seat and will take care of her if needs be; she did not want to use the earphones but we convinced her that she needed it to communicate.

A last handshake with the doctor and I latch the rear compartment door. I get on my set, install my "co-pilot" and check the front door latch. I turn the Mains switch on, check the electrical parameters, fuel pumps on, full rich, one inch throttle, no one around..... ignition, start left engine, right one, check engines parameters, suction pump. I tune the radio to the local traffic frequency (122.9). Although I am the only running aircraft on the field, and no incoming traffic is announced, I give my position

and intentions: « Foxtrot Oscar Delta Bravo Uniform at November Tango Mike November taxi to runway Two Zero » .



We now taxi to the holding point where we have to proceed thru the takeoff checklist, I set the elevator trim to TO, announce to the possible traffic I am ready to take off and, despite the radio silence, check visually that there is no incoming aircraft in final. I drive Jojo in line with the runway center markings, put my right hand on the throttle levers and push them full forward. The two Lycoming's run up to 3400 rpm in the roar of their 295 Hp (each); our spines are squeezed against our seats. I keep a slight pressure forward on the yoke until the airspeed indicator reaches 80 Knots, as I release the pressure on the yoke, Jojo raises her nose, I let her do and suddenly, the wheels vibrations and noise stop, it is 07:22, we are airborne.



I move the landing gear lever up, three snaps and three green lights on the dashboard confirm the gear is up and locked. As we reach 600 ft, I switch the fuel pumps off and set engines and elevator trim to obtain the proper climb rate : 3100 rpm, airspeed 120 kts, vertical speed 1400 ft/min.

Then I set the autopilot parameters: heading 220, 8500 ft (FL080), and push the switch on. Jojo raises her left wing a bit and the compass turns right to the selected heading. At 07:30, we reach our cruise level; Jojo lowers her nose to stabilize on horizontal flight, I reduce the engines rpm to 2500 using the propeller pitch levers and I let the indicated airspeed (IAS) increase to 145 kts which, at that level gives a true airspeed (TAS) of 165 kts; Add the influence of a 13 kts backwind from hdg 049, our groundspeed (GS) is ...178 kts, the heading requires a “one” degree correction, I set the AP

(autopilot) to hdg 221. As I described the “climb” phase, I called Tahiti regional traffic control (126.7) to announce our presence in the air and declare our flight plan; they give me the squawk code 0277. When the squawk code is set on the transponder radio set, it shows up on the controller’s radar monitor besides our plane’s spot, indicating him our current position.

Thanks to the technologies progress, today I have a wonderful navigation aid Jacques did not even imagine in the 70’s : a GPS on which I have programmed our route. I clip that instrument on the yoke to be able to track our position to the ideal route. However, in order to be as much as possible in the same situation as in Brel’s years, I will use the conventional radionav (ADF/VOR) until I feel I get lost. On that first leg, the ADF is set on the Atuona marker frequency (383 Khz) and I have to keep it straight behind me on heading 040 since I am heading 220. A quick check of engines pressures and temps and we are set for a little less than 3 hours. Below us, water, above, a pure blue sky; I turn myself towards my passengers to make sure they are comfortable, the lady says that she was holding her seat during takeoff and was a little bit scared when I took my hands off the yoke. I tell her about the AP : she feels better; then we talk about the life in Hiva Oa while sipping some coffee



07:49, we are 75 Nm away from Atuona and we just lost the ADF signal. The next one, Takaputo is some 400 Nm ahead, we are going to fly completely blind for more than 2 hours but since we have not deviated from our route so far, I keep the same navigation settings; in case of emergency, the GPS will keep us out of trouble. Nevertheless, I set the ADF receiver to the next marker frequency in order to catch it as soon as we enter its range. A few clouds show up ahead, if turbulences are too strong, I will descend 500

Apart from a regular check of the instruments panel, I keep busy recalculating our navigation; it's 08:08, we have flown for 46 min at a 178 Kts ground speed, we therefore are 100 Nm away and 321 are left (or 1/48 hrs) to reach Takaroa, it will be 09:56. A quick look at the GPS validates my calculation by one minute

09:13, RAS, another look at the GPS shows no track deviation..

09:33, We've just caught the Takaputo marker, it's straight ahead. According to my calculations, Takaroa is 60 Nm ahead and appears on the vanishing line. As a confirmation, the VOR I had set on Rangiroa wakes up, the indicator shows it's on our 2 o'clock (200° to the right) but too far away to be visible.

Now I perfectly see the Takaroa atoll, the airfield must be 1500 ft on the left of our route. I turn the AP off to fly Jojo straight above the runway which happens at ..... 09:55. Wonderful ! I set the PA heading to 224 and swith it back on to Tahiti which we should reach at 11:45. On our left, Takaputo.

10:03, far ahead on our right; the Manihi atoll and 6 minutes later, Atapaki breaks the horizon.



10:26, we are in the center of the Tuamotu archipelago, surrounded by atolls; Atamphi is behind us, Arutua on the right, Toau on the left and Kaukura ahead, in the rear compartment, my passenger can't believe it, she moves from one seat to the other to record every bit of the scenery then, at 10:33 Kaukura fades out under the right engine; we have no more visual contact, we are blind again. Fortunately, a few minutes ago I have tuned the VOR receiver on Tahiti frequency (112.9) and it just came alive. I can then turn the NAV function of the AP which would automatically correct the heading if necessary, but for the sake of pleasure, I stay on the HDG mode which maintains the plane heading I have preset

10:59, far ahead, lightning's come of a group of cumulonimbus (thunderstorm clouds) I ask permission to climb to 11500 ft (FL115) to overfly them and set the AP to climb to that new level with a vertical speed (VS) of 1400 ft/min . Even with full power, it's too much for Jojo and the airspeed falls; I reduce the VS to 1000 ft/min and the airspeed stabilizes to 120 Kts. Arriving at 11500 Ft, I am still too low and continue to FL145..

At that level, we surf between two majestic rows of cumimb's with their anvil shaped tops about 10000 ft above us threatening to break our small machine apart with their internal

turbulences. From time to time, a lightning illuminates our cockpit, my passengers are not really confident despite my relaxed face. As we were climbing, we have been integrated into Tahiti's approach traffic control (ATC) for an instruments landing (ILS) on runway 04

11:21, ATC requests two heading change to confirm my identification on the radar monitor and finally clears me to HDG 215.

11:34, I have just turned to hdg 240 to go around a big cloud when ATC instructs me to go 250; parapsychology

11:38, the clouds are sparser and I can see Tahiti in front of us. I am told to descend to 6400 ft, I confirm and set the AP, then I reduce the power to maintain our airspeed. We are now in the hands of the final approach controller, heading and flight level change one after each other to integrate the incoming traffic. I tune the VOR to the ILS frequency (109.9) and the course to 044

11:44, we leave Faaa airport on the right and descend through a compact layer of cumulus, I have to recognize that if I was not 100% confident with the ATC, I would fear coming so close to the mountain. We are above the sea again (wet feet) at 6400 ft

11:51, turning to 310, then 345, down to 3000 ft , mixture full rich, speed 120 kts, flaps 5°, I have just been through these preparation steps when I receive instructions to get to the ILS entry point. At 11:57, I switch the Com radio to the tower frequency for the final leg. The AP is switched to APR(approach) mode, I request the passenger to buckle their safety belt, we will fly thru the clouds layer and they will be a little bit shaken. In addition, we still have no visual contact and I want to avoid any panic movement. Landing lights to “ON” , the ILS indicator shows me I am on the left of the runway but my current heading (055) brings me back on track. I am now 16 Nm to the runway and still blind but I know from the instruments that I am safe. 10 Nm to the runway, gear down, propeller pitch to min, I set the speed to 100 kts using the throttle levers.

8 Nm to the runway, the island shore shows up and the ILS needle, heading and slope, are both in the center of the indicator; we begin the final descent.

At 7 Nm, the runway lights show up thru the rain, 5 Nm left, flaps 10°, speed 80 kts, I am inside a cloud again only 500 ft above the water and the winds drives us up and down. I give some more power to reduce the descent speed when, at 1.7 Nm, the runway appears. The slope guide

lights (Papi) are almost good (3 white one red meaning I am a bit too high), I turn the AP off and bring Jojo to the surface like a dragon fly, It is 12:11.



The weather is crazy, raining cats and dogs but the flight went right. The passengers sure were a bit feared for the landing but they kept quiet and despite the rain, they were glad to get out of that flying monster in which for a moment, they thought they would die.

Thanks to Eric Dantès and his team for  
developping "Jojo" FS model

Jojo is available on <http://www.francesim.com>  
and on <http://www.surclaro.com>

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