

Mission 1

Landing in Hong Kong



Flight Story

You are operating the Cathay Pacific Flight CPA831 from New York JFK airport (KJFK) to Hong Kong (VHHH) in an A340-600. It was a long intercontinental flight, but now you have to be fully focussed in order to perform the beautiful RNP-Y approach onto runway 25L in Hong Kong.

Mission Goal

Land successfully on VHHH runway 25L following the RNP Y approach.

Lesson learned:

Management of final descent, approach and landing. What actions are required when?

Situation files:

Weather preset: Aerosoft A340-600 Pro - Situation 01

Situation file to load in EFB: AS_SIT01_CPA_VHHH_RNPY_APPR

Starting condition:

After situation load, the aircraft will be at 12000ft just before waypoint SILVA.

Thrust levers: CL detent, flap lever: 0, gear lever: UP

User actions:

Transition altitude is 11000ft. Once the aircraft passed 11000ft:

- Switch baro setting from STD to QNH 1015 (captain, copilot and ISIS)

Wait until the aircraft passed 10000ft, then:

- Switch on the landing lights
- Switch on the seat belt sign (position ON, not AUTO)
- Reduce ND range to 20NM

Waypoint HH631 has a 210kts speed limit:

- Verify your "green dot" speed. It is 212kts, which is above the speed limit.
- At HH632 (!) extend the slats to position 1 to allow managed speed reduction to 210kts. (the new limit is S-Speed which for the current weight is 203kts.)

After passing HH631:

- Push the APPR button on the FCU to arm the approach mode.
The FMA changes:
 - FINAL mode armed in blue (2nd column)
 - APP NAV mode active (3rd column)
- Reduce ND range to 10NM

Waypoint HH871 has a 180kts speed limit:

- Verify your “S” speed. It is 203kts, which is above the speed limit.
- At LUDLA Extend the flaps to position 2 to allow managed speed reduction to 180kts. (the new limit is F-Speed which for the current weight is 175kts.)

At HH871, the AP mode changes to FINAL APP

- Verify the FMA: A/THR mode “SPEED” and AP combined mode “FINAL APP”

After passing HH872:

- Extend the landing gear
- Switch on the RWY turnoff lights and the Nose wheel lights (position taxi)
- Arm the ground spoilers (pull up the speed brake lever)
- Extend flaps to position 3. Check your speed before that you are below 206kts
- Select Auto Brake LO for the landing in Hong Kong

At HH873:

- Extend flaps to full (verify speed below 200kts before)
- Press one of the purser call buttons to clear the CABIN READY memo item on the ECAM.

The RNP-Y approach into runway 25L is a non-precision approach and the landing cannot be performed automatically. We recommend disconnecting the autopilot, once the aircraft stabilized on the approach speed of 150kts

- Disconnect the Autopilot via the red AP instinctive disconnect button on the sidestick
- Continue the approach flying manually
- At 500ft switch off both flight directors and continue a visual approach
- Initiate the flare at 40ft. You may want to anticipate the 40ft callout for this.
- Only set the thrust levers to idle once the flare is established.
- Maintain the nose up attitude for a smooth touch down.
- After touch down activate thrust reversers and maintain MAX REV until 80kts
- Reduce to REV IDLE and stow the reversers at 60kts
- At 20kts, apply brakes to disengage the auto brake
- Vacate the runway to the right, most likely on J4.
- Taxi to the gate, feel free to use the taxi cam for that.

Mission 2

RNP approach with AC1-2 fault



Flight Story

You are operating the Mahan Air Flight IRM from Tehran, Iran (OIIE) to Milan, Italy (LIMC) in an A340-600. You are approaching your destination with a planned RNP-Y final onto runway 17R in Milan. Just as you do the final approach preparations, the aircraft encounters an AC1-2 bus fault.

Mission Goal

Perform the ECAM actions and land on LIMC runway 17R via the RNP-Y approach.

Lesson learned:

ECAM actions of a single failure. Management of final descent, approach and landing with a faulty system increasing the crew workload.

Situation files:

Weather preset: Aerosoft A340-600 Pro - Situation 02

Situation file to load in EFB: AS_SIT02_IRM_LIMC_AC12FAULT

Starting condition:

After situation load, the aircraft will be at 9000ft 8NM from VOR MMP

Thrust levers: CL detent, flap lever: 0, gear lever: UP

User actions:

After spawning, use the time without anything to do to familiarize with the current aircraft configuration and the planned approach

At 8000ft, the AC1-2 bus will fail. You will see the following symptoms

- Electrical relays are switching
- Captain ND goes blank
- Lower ECAM goes blank
- An ECAM caution message appears on the upper ECAM display.

Perform the ECAM actions:

- Set VENT EXTRACT button to override (right lower section of OHP)
- Set the AIR FLOW knob to HI (AIR COND panel)
- Set the N1 mode switch to ON for all engines (right lower section of OHP)

You will notice that the A/THR has disconnected due to the AC1-2 bus fault. The respective ECAM message appears:

AUTO FLT A/THR OFF
ENG THRUST LOCKED

After having switched all engines to N1 mode, the A/THR is available again and can be recovered:

- Press the A/THR button on the FCU to reengage A/THR

We have worked off the ECAM actions and now need to pass through the ECAM pages to see the current system state:

- Press the CLR button on the ECAM control panel to clear the A/THR OFF message
- Press the CLR button again to clear the AC BUS 1-2 FAULT message

The system will now show all the ECAM system pages that are affected by this fault:

- The ELEC page shows the loss of the AC1-2 bus. Press the CLR button to move to the next page, which is the status page

The status page shows all the systems that are failed due to the loss of AC1-2. There are no entries on the left side for approach procedure, so we can continue our approach as usual.

- Press CLR again to return to the regular display of engine parameters

By the time you completed this, the aircraft will be around MC734 and we need to start configuring the aircraft for landing. The aircraft has passed the DECELERATION point, between MMP and MC734, and the speed target shown on the PFD is now approach speed.

- Extend the slats to position 1 to allow deceleration to S-speed.

Note if you want to see the ND on the captain's side, you can use the PFD/ND transfer button on the lateral console (above the PFD brightness knob) to toggle PFD and ND display.

Transition altitude is 6000ft. Once the aircraft passed 6000ft:

- Switch baro setting from STD to QNH 1018 (captain, copilot and ISIS)
- Press the APPR button on the FCU to arm the approach mode.

Continue the descent:

- Reduce FCU altitude to 4000ft to ensure we descend until FINAL APP will engage
- Set flaps to 2 as soon as the airspeed has dropped below 220kts.

Once the aircraft passed MC743, perform the following actions:

- Extend the landing gear
- Set flaps to 3 as soon as the speed is less than 206kts
- Switch on the RWY turnoff lights and the Nose wheel lights (position taxi)
- Arm the ground spoilers (pull up the speed brake lever)
- Set the auto brake to position 2 for the landing in LIMC

Once the final turn is complete and the aircraft passed MC742:

- Set the flaps to FULL

As it was for situation 01, the RNP-Y approach is a non-precision approach that requires a manual. Disconnect the autopilot and perform a manual approach as described for situation 01.

Mission 3

Engine failure before V1



Flight Story

You just finished the flight preparation for the flight LH622 from Frankfurt, Germany (EDDF) to Riyadh, Saudi Arabia (OERK). Pushback and engine start are completed and you are lined up on RWY18 for departure. As you accelerate for take-off one of the engines fails prior to V1

Mission Goal

Abort the take-off once the engine failure is detected and taxi back to the apron.

Lesson learned:

Detecting an engine failure before V1. The first sign of the engine failure is the sudden yawing motion of the aircraft. The fault message only appears once the engine decelerates through idle which is a few seconds after the engine failure.

Situation files:

Weather preset: Aerosoft A340-600 Pro - Situation 03

Situation file to load in EFB: AS_SIT03_DLH_EDDF_ENG_FAIL_V1

Starting condition:

After situation load, the aircraft will be at the beginning of RWY18 in EDDF

Thrust levers: Idle, flap lever: 2, gear lever: Down, park brake on.

User actions:

To start the take-off run, perform the following:

- Release the park brake, but apply pedal brakes
- Move the thrust levers forward until the cyan donut is at 1.1 EPR
- Wait for the engines to stabilize
- Release the brakes
- Move thrust levers into the MCT/FLEX detent to command TO FLEX thrust
- Check the FMA: MAN FLEX 65 in the left column, SRS (green) in the 2nd column, 3rd column only has NAV armed in blue in the second line

Maintain the aircraft on the runway centerline using the pedals

- When you detect a sudden yawing to one side place the thrust levers in IDLE
- Maintain directional control with the pedals
- At 40kts, use the brake pedals to disengage the autobrake.

- Bring the aircraft to a gentle full stop using the brake pedals
- Apply the parking brake.

We will now process the ECAM actions in order to check if we can safely taxi back to the apron on three engines or if something more serious has happened requiring the fire brigade, an evacuation etc.

- Follow the ECAM actions:
 - Set ENG1 Master to OFFYou consult with the cabin crew and there are no signs of damage, so we do not need to apply the "IF DAMAGE" part of the procedure.
As we are still on the ground, we also do not need to consider an engine relight, but we'd rather let maintenance take a look first.
- Press the CLR button to clear the ECAM message

We decide to taxi back to the apron:

- Switch on the Taxi Cam for the Captain PFD
- Release the park brake
- Apply a little bit of thrust to reach 15kts, then idle the thrust levers
- Disarm the speed brakes and retract the flaps
- At the end of the runway turn onto the parallel taxiway to taxi back to the apron. (Note: Wait until the end, the turn-off just before is not suitable to enter the parallel taxiway)

During the taxi back to the apron, you will most likely receive an ECAM Message:

WHEEL TIRE LO PR

The rejected take-off that we performed was a so-called HERTO – High Energy rejected take-off, as it happened around V1. We did not use any thrust reversers while slowing down, so the entire kinetic energy of the aircraft went into the brakes.

The brakes now overheat and to avoid tires bursting the thermal fuses in the tires gave way, deflating the tires. The aircraft is now immobilized; we should call the airport fire brigade and shut down the aircraft.

To shut down the aircraft:

- Start the APU by pressing the APU Master switch and a few seconds later the APU start switch
- Wait until the APU is running, then switch off Engine Master switches 2 to 4.

Mission 4

Approach with 1 engine failed



Flight Story

You are the captain for Thai Airways flight 924 from Bangkok to Munich. The 11 hour flight was uneventful and you are preparing for landing in Munich. The weather in Munich is not very good, it will be an approach with a low-hanging closed cloud layer. Also, the airplane has a surprise in stock for you

Mission Goal

Secure the engine failure following the ECAM procedures. Continue your approach and perform a single engine landing

Lesson learned:

Securing a failed engine in flight and conducting an approach with one engine failed.

Situation files:

Weather preset: Aerosoft A340-600 Pro - Situation 04

Situation file to load in EFB: AS_SIT04_THA_EDDM_ENG_FAIL_CAT1

Starting condition:

After situation load, the aircraft will be just above FL100, approaching D260R

Thrust levers: CL detent, flap lever: 0, gear lever: UP

User actions:

When passing through FL100:

- Switch on the landing lights
- Switch on the fasten seat belt signs

As the aircraft passes through 9500feet, engine 2 fails.

As the aircraft is still flying safely on autopilot, perform the ECAM actions:

- Move the thrust levers into the MCT detent in order to allow full thrust authority in the presence of an engine failure
- ENG MODE lever to position IGN/START
- Set ENG 2 thrust lever to IDLE
- After 30s, set ENG 2 Master switch to OFF
- This is not an engine failure with damage, so we can skip the ECAM section "IF DAMAGE"
- We also do not consider an ENG RELIGHT: Press CLR to clear the ENG 2 FAIL ECAM message.

- Process the ECAM actions for ENG 2 SHUTDOWN:
- Fuel imbalance monitoring is a long term item, as engine 2 does not consume fuel anymore. No immediate action required.
- On the TCAS panel, set the TCAS mode to TA.
- Press CLR to clear the ENG 2 SHUTDOWN message
- The last message we will have to deal with is “AIR ABNORM BLEED CONFIG”
- Set the Cross bleed valve to OPEN
- Set the Pack flow selector to AUTO LO
- Switch off the Fwd Cargo temperature control
- Press the CLR button to clear the ABNORM BLEED CONFIG message
- Press CLR repeatedly to go through the system pages until we reach the status page
- The status page says that we should use flaps 3 for landing, which we need to keep in mind for the approach planning. Press CLR to terminate the ECAM actions
- Press the PERF button on the MCDU to call the DES PERF page
- Click next Phase to go to the APPR PERF page
- Click on flaps 3 (LSK 4R) to configure the aircraft for a flaps 3 landing

Perform the approach:

- Extend flaps to position 1 to allow slowing down the S-speed when appropriate
- Press CLR to remove the Status page that is shown on slat extension as reminder
- You may receive ECAM messages related to ICING. If you do, switch on Anti Ice for all 4 engines (also the failed one for procedural reasons) and if requested Wing Anti Ice.
- Set the Altimeter settings from Std to QNH1015 (on all three altimeters)
- Arm the approach mode by pressing the APPR button on the FCU
- Activate the second autopilot by pressing AP2

The aircraft passes the Deceleration point, initiating the APPR phase short before D057F

- Select flaps two, once the airspeed is less then 220kts.
- Activate the LS display on the PFD and set the ND range to 10NM
- At the 2000ft Radio altitude callout, extend the gear
- Then extend the flaps into our landing position 3
- Arm the ground spoilers
- Switch on the Nose wheel light (position taxi) and the RWY turnoff light
- Press a purser call button to clear the “cabin ready” item

Landing:

Perform an automatic landing:

- At the 20 callout, set the thrust levers to idle
- After touchdown, move the thrust levers to the MAX REV position
- At 80kts, set thrust levers to reverse idle
- At 60kts, set thrust levers to forward idle
- Apply pedal brakes to slow down to taxi speed.

Taxi to a gate of your choice and shut down the aircraft.

Mission 5

Engine failure after V1



Flight Story

You are the captain for Etihad flight 58 from Brussels to Abu Dhabi. You are accelerating down runway 25R in Brussels as one of your engines fails after V1.

Mission Goal

Continue the take-off with the engine failure. Stabilize the aircraft, secure the engine and then return to EBBR for a safe landing.

Lesson learned:

Detecting an engine failure after V1. Continuing the take-off and managing the initial climb with a failed engine. Diverting to your departure airport using the preplanned approach in the secondary flight plan.

Situation files:

Weather preset: Aerosoft A340-600 Pro - Situation 05

Situation file to load in EFB: AS_SIT05_ETD_EBBR_ENG_FAIL_V1+

Starting condition:

After situation load, the aircraft will be at the beginning of RWY25R in EBBR

Thrust levers: Idle, flap lever: 3, gear lever: Down, park brake on.

User actions:

To start the take-off run, perform the following:

- Release the park brake, but apply pedal brakes
- Move the thrust levers forward until the cyan donut is at 1.1 EPR
- Wait for the engines to stabilize
- Release the brakes
- Move thrust levers into the MCT/FLEX detent to command TO FLEX thrust
- Check the FMA: MAN FLEX 65 in the left column, SRS (green) in the 2nd column, RWY (green) in the third column

Conduct the take-off run:

- Maintain the aircraft on the runway centerline using the pedals
- After the engine failure, continue the TO, maintaining the center line with pedals
- At Rotation speed gently raise the nose to 10degrees and maintain it there.
- Once airborne follow the flight director

- Once the vertical speed is greater than 500fpm, select the landing gear lever UP
- At 400ft Radio Altitude, engage the Autopilot
- Execute the only ECAM action currently shown: Set the ENG mode switch to position START/IGN

For the first 30s after TO, the ECAM will not show any further ECAM actions in order to not distract the pilot from his primary job: Fly the aircraft.

In an engine out, scenario, the pilot is supposed to follow the Engine out corridor, which in EBBR is the straight runway heading shown by the blue dashed line on the ND.

- Pull the heading knob in the FCU to revert to heading mode and fly straight ahead.

Once the ECAM actions appear on the EWD execute them:

- Set the ENG3 thrust lever to idle
- Set ENG3 Master to OFF (30s have passed since the engine failure)
- We do not assume damage and do not consider a relight, so we can CLR the ECAM message "ENG 3 FAIL", as we processed all associated ECAM actions
- Process the ECAM actions for ENG 3 SHUTDOWN:
- Fuel imbalance monitoring is a long term item, as engine 3 does not consume fuel anymore. No immediate action required.
- On the TCAS panel, set the TCAS mode to TA.
- Press CLR to clear the ENG 3 SHUTDOWN message
- The last message we will have to deal with is "AIR ABNORM BLEED CONFIG"
- Set the Cross bleed valve to OPEN
- Set the Pack flow selector to AUTO LO
- Switch off the Fwd Cargo temperature control
- Press the CLR button to clear the ABNORM BLEED CONFIG message
- Press CLR repeatedly to go through the system pages until we reach the status page
- The status page says that we should use flaps 3 for landing, which we need to keep in mind for the approach planning. Press CLR to terminate the ECAM actions

Acceleration and return to EBBR:

By now, we should be above 2000ft and well high enough to level off to accelerate:

- Press the FCU VS knob to command a VS of 0 fpm
- Speed target changes to 250kts and the aircraft accelerates:
- Retract the flaps to position 1 if above F-speed
- Disarm the speed brakes and turn off the RWY turnoff light and the NOSE light
- Once the aircraft is above S-speed, retract the flaps fully. The speed target changes to Green dot speed.

As we won't be flying to Abu Dhabi, it is time to return to EBBR:

- Turn the heading knob right to HDG 060

Activating the secondary flight plan:

Prior to departure, pilots often create a secondary flight plan with an ILS approach into the departure airport preprogrammed. We did this here too, so we only need to activate the secondary plan:

- Go to the secondary flight plan page
- Click Activate secondary
- Set the ND range to 40NM and you should be able to see the waypoint UVETI as the beginning of the approach into EBBR 25R.

Note, if you took a long time for the previous steps, it may be that you have some distance to fly before you see the approach.

Preparing the APPR PERF page:

While flying the downwind leg, we fill the APPR PERF page:

- Click the PERF button on the MCDU
- Click NEXT PHASE until you are on the APPR page
- Enter the following values:
- QNH 1022
- OAT 29
- Wind: 230/10
- DH: 200
- LDG CONF: Select 3, as per instructions on the Status page

Approach:

As we are getting close to UVETI, we need to start slowing down and configuring the aircraft for the approach. Note that our weight is above Maximum landing weight, so we will perform an overweight landing.

- Click the PERF Page button on the MCDU
- Activate the approach phase via LSK6L (press twice)
- Extend the flaps to position 1
- Clear the status page that appeared again
- Speed will only decay to 225knots as we are fairly heavy. Extend slats to position 2 to slow down further
- On the MCDU, press the DIR TO button and then press the LSK next to UVETI in order to prepare the Direct TO UVETI
- Once the aircraft is ABEAM UVETI, activate the DIR TO with LSK 6R in the MCDU
- Press the APPR button on the FCU

Once the LOC was captured:

- Extend the landing gear
- Set flaps to position 3
- Arm the speed brakes and switch on the RWY turnoff light and the NOSE light to TAXI

Perform a regular ILS landing. Due to the overweight, it should be a manual landing.

Mission 6

Windshear warning on approach



Flight Story

You are operating South African Airways flight 235 from London Heathrow, UK (EGLL) to Johannesburg, South Africa (FAOR). The weather is not the best; there are thunderstorms around making the approach challenging. At 500ft you get a windshear warning.

Mission Goal

Initiate a go around when the windshear warning triggers. Prepare for a second approach and land.

Lesson learned:

Correct response to windshear warnings; coming back for a second approach after a go around

Situation files:

Weather preset: Aerosoft A340-600 Pro - Situation 06

Situation file to load in EFB: AS_SIT06_SAA_FAOR_WINDSHEAR

Starting condition:

After situation load, the aircraft will be at FL150, just before waypoint OR365

Thrust levers: CL detent, flap lever: 0, gear lever: UP

User actions:

This is an advanced mission, so we will only provide the outline of the actions to do, rather than the detailed steps.

- Once in the MANUAL leg, use the DIR TO function with RADIAL IN to fly to CI21R (you want to be at least at flaps 1 for this part, flaps 2 is ok also)
- Make sure you are at 8000ft when you reach CI21R
- Configure the aircraft for landing
- Set a go around altitude of 8000ft in the FCU once established on the G/S
- Go around on wind shear
- Follow the go around path until the MANUAL leg
- Program the MCDU to do the approach to RWY21R again
- Perform the approach again and land the aircraft.

Mission 7

Dual Hydraulic failure



Flight Story

The flight from Kuala Lumpur, Malaysia (WMKK) to Doha, Qatar (OTHH) was already interesting. Short before the top of descent, the engine driven hydraulic pump for the blue hydraulic failed. Now, as you are approaching Doha, the pump for the yellow hydraulic system is also giving up.

Mission Goal

Conduct the ECAM actions for the dual hydraulic failure. Adapt the landing preparation accordingly. Autopilot will not be available and manual flight is required for this mission

Lesson learned:

Managing complex failure scenarios leading to loss of AP.

Situation files:

Weather preset: Aerosoft A340-600 Pro - Situation 07

Situation file to load in EFB: AS_SIT07_QTR_OTHH_DUAL_HYD_FAULT

Starting condition:

After situation load, the aircraft will be at 11000feet approaching EMALO following the STAR into OTHH for an ILS approach to runway 34R

Thrust levers: CL detent, flap lever: 0, gear lever: UP

User actions:

This is an advanced mission, so we will only provide the outline of the actions to do, rather than the detailed steps.

- Perform the usual approach preparations
- When the dual hydraulic failure warning appears, the Autopilot disconnects
- Take manual control – always fly the plane first
- Manage the ECAM actions step by step while still remembering to fly at all times.
- The aircraft is in alternate law with AP lost
- Once the ECAM actions are complete continue the approach
- Consult the Status page to check for the approach procedure under these conditions
- Configure the aircraft early for landing – be at flaps 2 and Gear down before proceeding to LAGMA
- Use selected speed for the approach according to the info on the status page
- Perform a landing considering these modifications to the approach procedure

Mission 8

Explosive decompression



Flight Story

You are the captain on the flight Iberia 6837 on the way from Madrid, Spain (LEMD) to Santiago de Chile (SCEL). As you are approaching the top of descent, you hear a loud bang and a popping noise in your ears followed by an ECAM warning indicating an excessive cabin altitude

Mission Goal

Initiate an emergency descent. As you cannot cross the Andes at 10000ft, find an airport on the Eastern side of the Andes to land

Lesson learned:

Emergency descent procedure in the context of high terrain. Diversion decision taking terrain constraints into account.

Situation files:

Weather preset: Aerosoft A340-600 Pro - Situation 08

Situation file to load in EFB: AS_SIT08_IBE_SCEL_DECOMP

Starting condition:

After situation load, the aircraft will be at cruise altitude 100NM before the TOD.

Thrust levers: CL detent, flap lever: 0, gear lever: UP

User actions:

This is an advanced mission, so we will only provide the outline of the actions to do, rather than the detailed steps.

- Initiate an emergency descent:
- Select 10000ft on the FCU and initiate open Descent
- Extend speed brakes full
- Select M0.86 or 330knots selected speed
- Pull the heading knob and turn away from your current path by 45 degrees (we recommend to the left)
- Identify an airport on the eastern side of the Andes to land.
- Program the FMGS to guide you to this airport at 10000ft and land the aircraft.

Mission 9

Engine failure with damage



Flight Story

The flight Iberia 281 from Madrid, Spain (LEMD) to Tokyo, Japan (RJAA) left Madrid about 30 minutes ago and just reached cruise altitude. Suddenly engine 4 fails with a bang. Short after the engine failure, the aircraft reports a low fluid level for the green hydraulic system.

Mission Goal

Complete the ECAM action and initiate a diversion to Barcelona. As the aircraft is well above the maximum landing weight, dump fuel in order to get within weight limits.

Lesson learned:

Managing engine failures with damage and loss of hydraulics; diverting to an airport not in the flight plan and fuel dumping.

Situation files:

Weather preset: Aerosoft A340-600 Pro - Situation 09

Situation file to load in EFB: AS_SIT09_IBE_LEBL_ENG_FAIL_DAMAGE

Starting condition:

After situation load, the aircraft will be in cruise at FL300 flying towards BISES

Thrust levers: CL detent, flap lever: 0, gear lever: UP

User actions:

This is an advanced mission, so we will only provide the outline of the actions to do, rather than the detailed steps.

- Complete the ECAM actions to secure the engine and the hydraulic system
- Program the FMGS for a diversion to Barcelona LEBL
- Create a holding pattern to dump fuel
- Descent to FL200 during the fuel dump
- Once the target gross weight of 259t has been reached, stop the fuel dump
- Land in LEBL (we recommend runway ILS24R)

Mission 10

Dual IR fault



Flight Story

You are the captain of flight Virgin 900 from London Heathrow, UK (EGLL) to Tokyo, Japan (RJAA). You left London a bit over an hour ago and you are over the North Sea approaching Norway, as IR3 fails. As you are over Oslo, IR2 also fails.

Mission Goal

Complete the ECAM action and initiate a diversion to Oslo. As the aircraft is well above the maximum landing weight, dump fuel in order to get within weight limits.

Lesson learned:

Managing dual hydraulic failures; diverting to an airport not in the flight plan and fuel dumping.

Situation files:

Weather preset: Aerosoft A340-600 Pro - Situation 10

Situation file to load in EFB: AS_SIT10_VIR_ENGM_DUAL_IR_FAULT

Starting condition:

After situation load, the aircraft will be flying at cruising altitude FL310 approaching waypoint ULMUG

Thrust levers: CL detent, flap lever: 0, gear lever: UP

User actions:

This is an advanced mission, so we will only provide the outline of the actions to do, rather than the detailed steps.

- When the second IR failure message appears, the Autopilot disconnects
- Take manual control – always fly the plane first
- Manage the ECAM actions step by step while still remembering to fly at all times.
- The aircraft is in alternate law with AP lost
- Once the ECAM actions are complete prepare your diversion to Oslo (ENGM)
- Create a holding to dump fuel. During the fuel dump descent to FL200
- Once the fuel dump is complete, prepare the approach into Oslo (ENGM)
- Perform a landing keeping in mind the approach procedure items provided on the Status page.