











## EXERCISE 01





<b>01 - 1</b> <b>SWR 20LV</b> D 02		A320      Zurich - Geneva      FL 150 Route: VEBIT – ROTOS – BADEP - ULMES	<b>01 - 3</b> <b>SWR 15LD</b> Stand 15		A332      Geneva - Zurich      FL 160 Route: MOLUS – SOSAL – KORED – BERSU
<b>01 - 2</b> <b>SWR 35AD</b> Stand 12		RJ1H      Basle - Zurich      FL 90 Route: HOC	<b>01 - 4</b> <b>SWR 76DN</b> D 03		A319      Zurich - Basle      FL 100 (unable RWY 28) Route: VEBIT – BALIR - LUMEL





## EXERCISE 02

<b>02 - 1</b> <b>HB-FOX</b> South Apron C 3		PC12      Geneva - Munich      FL 230 Route: MOLUS – SOSAL – KORED – BERSU – DITON – KUDES – BODAN – FUSSE – OSDER	<b>02 - 3</b> <b>HB-LTZ</b> Stand 44		P180      Basle - Salzburg      FL 230 Route: ELBEG – TITIX – TRA – KUDES – BAMUR – ALGOI – KOGOL – BADVI – CHIEM – INSOL – SBG
<b>02 - 2</b> <b>HB-VND</b> GA Sector 1		C56X      Zurich - Frankfurt      FL 200 Route: DEGES – BODAN - ALAGO – MINGA – ETAGO – ETASA – SUPIX – PSA	<b>02 - 4</b> <b>RUS 311</b> YELLOW 4		DH8C      Bern - Stuttgart      FL 160 Route: RAMOK – BERSU – DITON – KUDES – ROMIR – GARSU – ARSUT – REUTL

## EXERCISE 03

<b>03 - 1</b> <b>SWR 1082</b> Stand 15		A321      Basle - Frankfurt      FL 200 Route: ELBEG – TITIX – HEUSE – LOKTA – TGO – ETASA – SUPIX – PSA	<b>03 - 3</b> <b>D-IEFB</b> RED 3		BE20      Bern - Munich      FL 190 Route: RAMOK – BERSU – DITON – KUDES – BODAN – FUSSE – OSDER
<b>03 - 2</b> <b>HB-VNA</b> North Apron L		C560      Geneva - Nurnberg      FL 220 Route: MOLUS – SOSAL – KORED – BERSU – DITON – KUDES – HEUSE - LOKTA - TGO - DKB	<b>03 - 4</b> <b>HB-CQX</b> GA Sector 1		P210      Zurich - Cologne      FL 160 Route: DEGES – BODAN – ALAGO – MINGA – ETAGO – LBU – TAGIK – VATAK – OLKAS – ASKIK – TABUM – DILUG – GULKO

<p><b>04 - 1</b> <b>HB-EWH</b> RED 5</p>		<p>BE33          Bern - Zurich          FL 80 <u>Route:</u> WIL</p>	<p><b>04 - 3</b> <b>F-GEQM</b> Apron 3</p>		<p>MU2          Friedrichshafen - Geneva          FL 190 <u>Route:</u> TRA – ROTOS – BADEP – ULMES</p>
<ul style="list-style-type: none"> <li>- According to NOTAM the ATIS is out of service. Ask Bern Tower for the necessary information.</li> <li>- In front of the runway you have a technical problem. You want to taxi to TRANSAIR for repair. You are unable to turn on the taxiway. There you stop the engine and let the mechanic do his work. After a few minutes you are ready to start again.</li> <li>- Before landing in Zurich you would like to make two ILS approaches for training.</li> </ul>			<ul style="list-style-type: none"> <li>- After receiving start up clearance you have a low battery warning which prevents engine start. Ask Friedrichshafen Tower to send assistance with ground power.</li> <li>- During climb the cabin pressure is not building up. The system is out of service so you have to ask for a lower cruising level.</li> <li>- You are passing abeam GVA VOR, and you have the runway in sight. Ask for a visual approach.</li> </ul>		
<p><b>04 - 2</b> <b>HB-LOT</b> GA Sector 3</p>		<p>PA31          Zurich - Basle          FL 100 <u>Route:</u> VEBIT – BALIR - LUMEL</p>	<p><b>04 - 4</b> <b>HB-CCR</b> North Apron K</p>		<p>C210          Geneva - Basle          FL 120 <u>Route:</u> SPR – FLORY – LPS – DELMO – BALIR – LEPLA – LUMEL</p>
<ul style="list-style-type: none"> <li>- After passing 5000 feet the left engine quits. You are in clouds and ask for a clearance back to Zurich.</li> <li>- After leaving the landing runway you would like to hold on the taxiway to check the engine. After a few minutes you are again ready to go.</li> <li>- After reaching your cruising level ice is building up. Ask for lower cruising level.</li> </ul>			<ul style="list-style-type: none"> <li>- You are half way between Geneva and St. Prex VOR. Due to heavy weight and high oil temperature you can't cross St. Prex at the required altitude given in your ATC route clearance. Inform ATC and ask to continue climb in VMC conditions.</li> <li>- You are able to obey later level restrictions on your further routing.</li> <li>- After LPS you receive a frequency change. On the new frequency ask immediately for lower level because you are entering a zone with moderate icing.</li> <li>- If Basle Approach proposes another type of approach your flight instructor wants you to make an ILS approach.</li> </ul>		

<p><b>05 - 1</b> <b>HB-GJH</b> GA Terminal 2</p>		<p>BE9L Stuttgart - Zurich FL 130 <u>Route:</u> SUL – IBINI – RILAX</p>	<p><b>05 - 3</b> <b>OH-CGW</b> GA Sector 3</p>		<p>C401 Zurich - Bern FL 90 <u>Route:</u> WIL</p>
<ul style="list-style-type: none"> <li>- It is a foggy day in Zurich. For your approach you need an RVR of 600 meters. After entering RILAX holding you ask Zurich Arrival to give you the actual RVR. Ask if the forecast is indicating an improvement.</li> <li>- You plan to divert to Basle. Ask for the pertinent values (ceiling and visibility) before requesting to fly to Basle.</li> </ul>		<ul style="list-style-type: none"> <li>- After passing 5000 feet you are entering clouds with icing conditions. Your climb rate is 300 feet per minute only and you report that your cruising speed will be reduced to 140 knots. Ask for a lower cruising level.</li> <li>- On the NDB approach you have an unstable ADF indication between Schupberg and Muri NDB. Ask for a homing.</li> </ul>			
<p><b>05 - 2</b> <b>HB-GIA</b> GA Sector 3</p>		<p>BE55 Zurich - Stuttgart FL 100 <u>Route:</u> DEGES – ROMGA – BODAN – ALAGO – ARSUT – REUTL</p>	<p><b>05 - 4</b> <b>HB-VJJ</b> Apron P3</p>		<p>LJ35 Luxembourg - Zurich FL 230 <u>Route:</u> GTQ – STR – LUPEN – DENEL – NATOR – RILAX</p>
<ul style="list-style-type: none"> <li>- Just after lift off the cabin door lock opens. Ask to return visually.</li> <li>- After roll out you lock the door and you are ready to take off again. You would like to taxi back on the runway into take off position.</li> <li>- In your pre-flight briefing you have seen that ATIS in Stuttgart is not working. Ask Langen Radar for the information you need.</li> </ul>		<ul style="list-style-type: none"> <li>- When entering the runway, you see a thunderstorm north-east of the field. Ask for a right turn after departure.</li> <li>- After passing DENEL you have a failure indication of a cabin pressure valve. Ask for a precautionary descent to FL 130.</li> <li>- You have a sick passenger on board. Ask Zurich Arrival to organize medical assistance.</li> <li>- At two miles final you pass a strong wind shear. Report this fact to the Tower after landing.</li> <li>- Inform Zurich Apron at first call that you want to go to ExecuJet parking.</li> </ul>			

06 - 1

**SAZ 302**

GA Parking 2



CL60 Stuttgart - Zurich FL 130

Route: SUL – IBINI – RILAX

06 - 3

**HB-GIL**

North Apron H



BE20 Geneva - Zurich FL 140

Route: KONIL – SOSAL – TELNO - KORED – BERSU

- During initial climb out a small aircraft crosses rather close. Report it to the controller.
- After passing Sulz-VOR you receive an order from your operation centre to proceed to Geneva. Flight level 210 would be your preferred cruising level. Ask the controller for an appropriate clearance.
- When passing waypoint BADEP you ask the controller to give you the latest weather information and runway conditions for Geneva.

- You would like to depart on runway 05.
- The top of clouds is at 4000 ft and there is clear sky above.
- After passing waypoint TELNO your passenger gives you the order to proceed to Basle.
- Because you have no radio contact to your handling agent you ask the controller if he could be so kind to inform Jet Aviation Zurich (phone number 6 48 84) about this diversion, and that your passenger requests limousine service in Basle.

06 - 2

**HB-LSH**

Apron 10



C340 Munich - Zurich FL 120

Route: AMPEG – MERSI – KPT – RAVED – ETOXU – NEGRA

06 - 4

**HB-LQZ**

GA Sector 1



C421 Zurich - Stuttgart FL 120

Route: DEGES – ROMGA – BODAN – ALAGO – ARSUT – REUTL

- There are a few stones on taxiway W2. Inform Apron about it.
- A few miles after Kempten VOR ice is building up. You would like to descend to a lower cruising level.
- Because of strong vibrations on one engine you have to shut it down. In order to make your planning you ask the controller to give you weather information for Friedrichshafen. You decide to divert there.

- On departure frequency you have to report that your gear cannot be retracted. Inform the controller that you are continuing, but in case you cannot solve the problem you plan to return to Zurich.  
After a few minutes your gear is retracted.
- If you have to expect a long approach delay in Stuttgart you proceed to your alternate Frankfurt.
- In Frankfurt you will be parked on the South Apron. Check EDDF map 10-9 for correct pilot's action.



07 - 1

HB-PPH

Stand S 438



PA46 Frankfurt - Bern FL 170

Route: ANEKI – BADLI – HERBI – NATOR – TRA – ROTOS

- Before departure you want to check the engines on full throttle. Inform the tower that you require about two minutes on the runway to do so.
- On reaching your cruising level you are still in cloud and experiencing icing. You would like to climb to FL 210.
- During your approach to Bern you cannot see the runway at the minimum and have to go around. You would like to try once more.

07 - 3

SWR1072

Stand A 05



A320 Zurich - Frankfurt FL 200

Route: DEGES – BODAN – MINGA – ETAGO – ETASA – SUPIX – PSA

- Shortly after take-off you get a cargo-hatch-open warning. You want to return for landing on runway 14 making a short visual approach.
- After landing you ask ATC to keep your flight plan.
- Advise Apron that you have organized mechanical assistance from your company, and that they want to meet you on the deicing pad C2.
- You stop the engines, and after short repair work you inform Delivery that you are ready to start again.
- Because of a thunderstorm in the region of BODAN you would like to route from Klotten VOR direct to MINGA.

07 - 2

HB-VNK

Stand A 11



C525 Strasbourg - Munich FL 230

Route: LUPEN – DENEL – NATOR – TRA – KUDES – BODAN – FUSSE – OSDER

- The pressurization of your cabin is malfunctioning. Report to the departure controller that you have to interrupt climb at FL 80 and require a couple of minutes to check the problem.
- After a short while you report the problem to be solved. You wish to climb further.
- In Munich you would like to perform an ILS approach by navigating on your own via Milldorf VOR.

07 - 4

HB-JEC





South Apron C6



CL30 Geneva - Nurnberg FL 260

Route: MOLUS – SOSAL – KORED – BERSU – KUDES – BAMUR – ALGOI – KOGOL – MAH – UNKUL – UPALA

- You consider the acceleration of the aircraft on take-off insufficient and abort. After that you would like to taxi back on the runway into the take-off position.
- Shortly after passing KORED you report that you need to fly east to avoid a thunderstorm area in the region of Willisau VOR.
- A truck is parked too close to the taxiway. You require a follow-me car to assist your taxiing.

<p><b>08 - 1</b> <b>HB-VMX</b> North Apron L</p>		<p>C550 Geneva - Luxembourg FL 220 <u>Route:</u> SIROD – ARBOS – PENDU – IXILU – EPL – GIVOR – SORAL – AKELU</p>	<p><b>08 - 3</b> <b>HB-VKW</b> GA Parking</p>		<p>H25B Basle - Bern FL 120 <u>Route:</u> BASUD - ROTOS</p>
<ul style="list-style-type: none"> <li>- You are able for an intersection departure.</li> <li>- You need to know the current RVR and vertical visibility for Luxembourg. Ask the approach controller.</li> <li>- Report to the tower that you wish to proceed to the freight hangar after landing.</li> <li>- After leaving the runway you have to stop because of thick fog. Ask for a follow-me car to assist your taxiing.</li> </ul>			<ul style="list-style-type: none"> <li>- You would like to use the whole runway for your departure.</li> <li>- On the runway you report that you have to solve a technical problem. Ask if you may remain in the take-off position for about two minutes.</li> <li>- Just after take-off, at the end of the runway, you fly through a flock of birds. Inform the tower.</li> <li>- After having received the approach clearance at Bern your hydraulic system fails. Report that you intend to remain in the BIRKI holding to check the problem. In the end you decide to proceed to Zurich instead.</li> <li>- In Zurich you want to taxi to RUAG Maintenance.</li> </ul>		
<p><b>08 - 2</b> <b>HB-IAJ</b> F 76</p>		<p>F2TH Zurich - Salzburg FL 230 <u>Route:</u> DEGES - BAMUR - NEBEL - ALGOI - KOGOL - BADVI - CHIEM - INSOL – SBG</p>	<p><b>08 - 4</b> <b>HB-LLK</b> S 412</p>		<p>PAY2 Frankfurt - Geneva FL 230 <u>Route:</u> ANEKI – BADLI – PABLA – HERBI – MOPAN – OLBEN – LUTIX – BENOT</p>
<ul style="list-style-type: none"> <li>- You need to abort your take-off roll because of a failed engine. You do not require any assistance by emergency personnel but would like to taxi back to the tarmac on the most direct route via runway 16 and taxiway E7.</li> <li>- Request to taxi to the Jet Aviation Hangar.</li> <li>- After short repair work you are again ready for engine start.</li> <li>- When touching down a tyre bursts. You are unable to taxi off the runway. Inform ATC.</li> </ul>			<ul style="list-style-type: none"> <li>- Your passengers will be about half an hour late. Begin your exercise by asking for a new departure slot.</li> <li>- You would like to take-off on runway 07R.</li> <li>- After first contact with Swiss Radar, ask for a slow descent with not more than 500 feet per minute because of a malfunctioning cabin pressure valve.</li> <li>- In Geneva you have no handling agent. Nevertheless inform the Tower that you would like to taxi to South Apron after landing. A passenger wants to disembark there.</li> </ul>		

09 - 1

OE-GLS

GA Sector 1



C650 Zurich - Vienna FL 270

Route: DEGES – BAMUR – NEBEL – ALGOI –  
CHIEM – NEMAL – GAMLI

- Shortly after take-off a fire warning for the right engine shows up. You decide to return to the field immediately.
- After landing you ask the tower to keep your flight plan to be able to leave as soon as repairs are completed.
- You want to proceed to Jet Aviation.
- After a short time you are again ready for start-up. Request a new ATC clearance.
- You need to know the latest weather information for Vienna. Ask Vienna Radar.

09 - 3

LY-HCW

V 265



H25B Frankfurt - Brussels FL 260

Route: SOBRA – RUDOT – BITBU - GOPAS –  
GESLO – LAREP – LNO

- You plan to use runway 18 for departure.
- You are on the runway but have a technical problem which needs about two minutes time to be solved. Ask if you may stay where you are.
- After take-off you cannot receive Ried VOR/DME. You need assistance from the radar controller.
- After BITBU you experience severe icing conditions. You would like to descend to FL 200.
- You want Brussels Arrival to provide you with the runway state report.

09 - 2

HB-PLE

North Apron J



PA46 Geneva - L/WIL - Birrfeld FL 90

Route: KONIL – FRI – WIL/VFR

- When reaching FL90 ask for higher level due to icing.
- When approaching WIL you are in cloud. Ask to join the WIL holding pattern to descend to 6000 ft.
- On reaching 6000 ft you are still in cloud. You decide to proceed to Zurich.
- After landing you report to the tower that you caught a wind-shear at 2 NM from touchdown.

09 - 4

D-CLUX





Apron 3



LJ31 Friedrichshafen - Dusseldorf FL 310

Route: ALAGO - MINGA - ETAGO - LBU -  
HAREM - LOHRE - TEKTU - SOGMI - ARPEG  
- ADEMI - DOMUX

- While taxiing a malfunction occurs. Report that you need to wait in front of the runway for a couple of minutes.
- After starting descent, you want to know the latest weather information for Dusseldorf. Ask Langen Radar.
- When touching down a tyre bursts. You are unable to taxi off the runway and wish to shut down your engines. Inform ATC.

<p><b>10 - 1</b> <b>HB-VHL</b> North Apron G</p>		<p>LJ55 Geneva - Stuttgart FL 240 <u>Route:</u> MOLUS – SOSAL – KORED – DITON – KUDES – ROMIR – GARMO – ARSUT – REUTL</p>	<p><b>10 - 3</b> <b>CS-DMK</b> GA Terminal</p>		<p>BE40 Dusseldorf - Geneva FL 250 <u>Route:</u> DODEN – GIGET – KRH – NATOR – OLBEN – LUTIX – BENOT</p>
<ul style="list-style-type: none"> <li>- On the runway you realize that there is still a problem to be solved in the cockpit. Estimating two minutes to get ready you would like to remain on the runway.</li> <li>- You fail to retract the landing gear after take-off. You decide to return for landing making your approach visually.</li> <li>- Entering downwind your problem is solved. You would like to fly on to Stuttgart.</li> <li>- When passing waypoint KORED you will be sent to the Zurich Sector of Swiss Radar. Advise him after first contact that you see some intense weather echoes on your weather radar. Ask to avoid to the east.</li> </ul>			<ul style="list-style-type: none"> <li>- You consider runway 05R most suitable for your departure.</li> <li>- After starting take off roll, you see a lot of birds at the runway end. You abort your take off. After a few minutes, you are ready again.</li> <li>- After FL150 you are entering severe icing hampering your climb performance. Advise the controller that you cannot cross DODEN at the required level.</li> <li>- Report to the tower that you would like to proceed to the Jet Aviation hangar after landing.</li> <li>- You miss the assigned turn-off taxiway. Request to turn around and taxi back on the runway.</li> </ul>		
<p><b>10 - 2</b> <b>SWR 1089</b> V 158</p>		<p>RJ85 Frankfurt - Basle FL 190 <u>Route:</u> ANEKI – BADLI – PABLA – DENEL – LIPKA – SEDOR</p>	<p><b>10 - 4</b> <b>HB-LEU</b> GA Sector 1</p>		<p>PA34 Zurich - Bern FL 90 Bern - Basle FL 100 <u>Route:</u> WIL BALIR</p>
<ul style="list-style-type: none"> <li>- You have difficulties to taxi because a truck is parked very close to your taxiway. You seek the assistance of a follow-me car.</li> <li>- Overhead FR Locator you report that you have a problem with RNAV equipment, and Metro VOR is not receivable. You require assistance from the radar controller.</li> <li>- After reaching your cruising level you're flying just below the top of cloud. Because of turbulence you prefer FL 210 as final level</li> </ul>			<ul style="list-style-type: none"> <li>- You need the whole runway for your departure.</li> <li>- On take-off roll you realize that the door is not locked properly. You abort take-off and lock the door. Thereafter you wish to taxi back on the runway to the take-off position.</li> <li>- You ask Bern Arrival for an NDB approach followed by a touch and go and flight to Basle.</li> <li>- In Basle you would like to hold at ALTIK for two patterns and perform an ILS 16 approach via the 9 DME arc BLM. Request this on Basle Arrival.</li> </ul>		