

IVAO-HU Special Operations Department

„Sarajevo” landing and terrain following flight training exercise
04.04.2009. 1800 UTC

The Hungarian Special Operations Department have the pleasure to invite you to the „Sarajevo” landing and terrain following flight training exercise. (Cat. 1/B.)

MISSION:

Terrain following cargo flight from LHTA (Taszár AFB, Hungary) to LQSA (Sarajevo Intl. Airport, Bosnia and Herzegovina), where pilots have to land with the so called „Sarajevo” landing procedure. After a couple of minutes on the ground every aircraft should leave the airport and fly back to LHTA, following the terrain again.



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ROUTE:

It's a terrain following flight, so there is no route, you have to find it between the airports. Very important that you **must** (if possible) fly as close to the ground as possible. But be careful with it! Before landing in Sarajevo you have to climb to higher altitude (min. altitude is 5500 feet – around Sarajevo are mountains with the height of 4000-4500 feet).

RULES:

1. Only military cargo aircrafts allowed (for example C-17, C-130, C-160, An-12, Il-76)
2. Maximum speed is 350 kts under the time of the event.
3. Military callsign is required.
4. Real (IvAp) weather is a must for all!
5. Pilots who complete the event will earn 1 SO point.

CHARTS:

Hungary: see scenery below

Bosnia and Herzegovina: -

SCENERY:

Hungary: <http://www.megafupload.com/en/file/92471/--open-beta-zip.html> (full, but open beta)

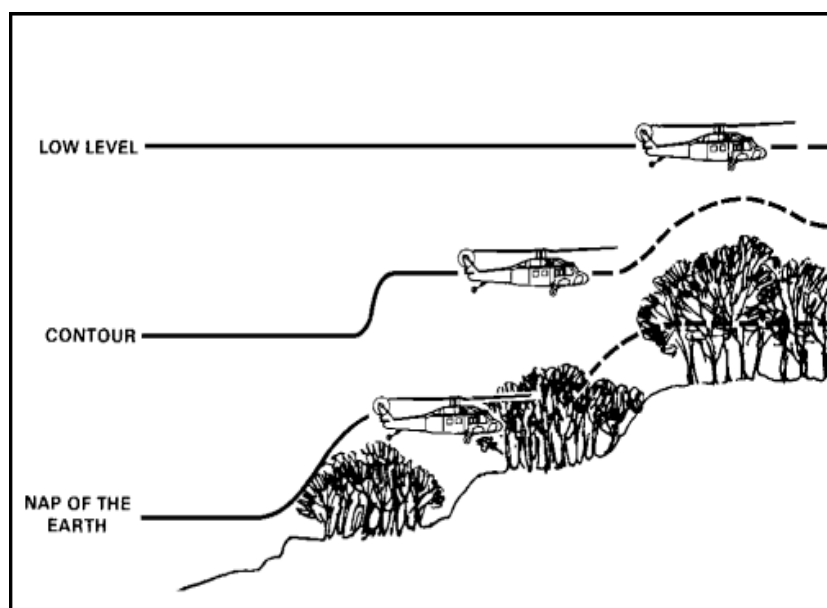
Bosnia and Herzegovina:

<http://library.avsim.net/download.php?DLID=39195> (mesh)

<http://www.mstrain.org/fs2000/addons/sar2004.zip> (LQSA scenery by Radoslav Tucakov)

Important infos about terrain following flight:

Terrain following flight means that pilots fly fast and close to the ground, maximum 450 feet from ground level, depending on their aircraft's abilities. With this type of flight they try to hide from ground based radars, AWACS or hostile fighters – and avoid ground fire.



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As you can see on the picture above, there are 3 way to do this:

- a) low level flight;
- b) contour flight;
- c) „nap of the Earth” flight.

Because you will fly on this event with a cargo aircraft, you have to fly somewhere between a) and b) – the third way is for helicopters or smaller, very agile aircrafts.

To accomplish this exercise, pilots must see/know where they're flying, so it needs good visibility **or** very good navigational system or special equipments – and infos about the terrain (see picture below). This is a really hard way of flight – between mountains or in bad weather conditions it's more dangerous.



This is a picture about a display which is shows the radar's picture about the terrain in front of the aircraft. To fly with this, you have to fly over the black parts (valleys). Radars like this will show terrain parts above and below you, so it means that you don't have to see out from your aircraft. In a way like this you are able to fly in the middle of the night, in clouds or in a storm safely - between mountains too.

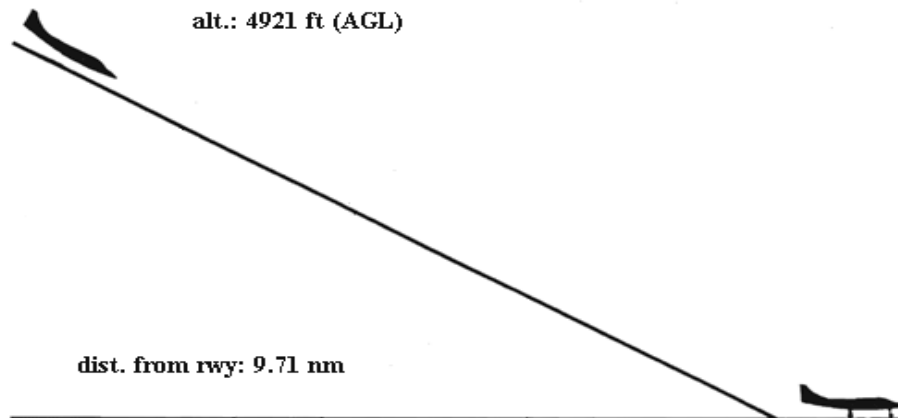
Important infos and background about the „Sarajevo” landing:

This is a special landing manoeuvre to avoid anti-aircraft guns and missiles from the ground in the near of airports where hostile forces are or can be present. The name is from the war in Bosnia.

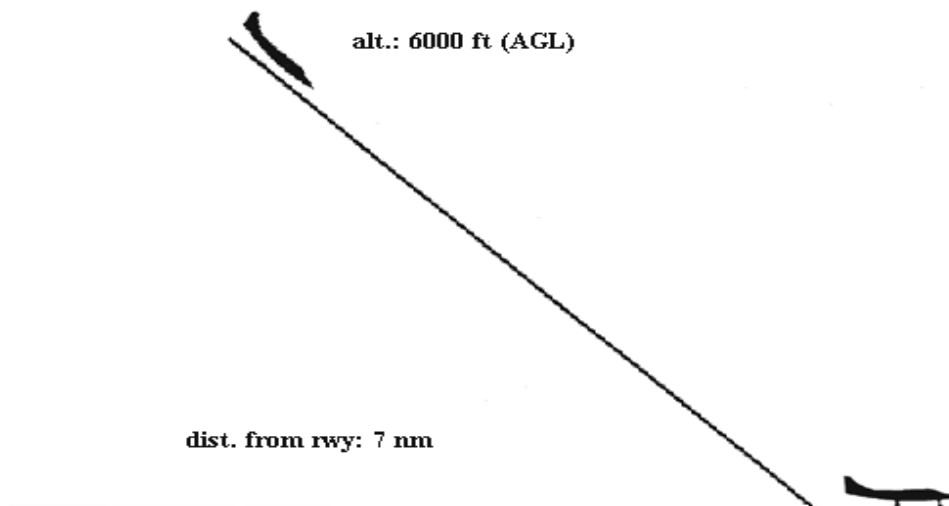
With this procedure aircrafts begin descend later and from higher altitude and they arriving right to the runway for a really fast landing. This manoeuvre is very extreme and dangerous. If you feel that your „Sarajevo landing” will be not succesful, you have to go around, because your aircraft's wreck will close the runway from other pilots. :)

Fuel is an important part: have enough fuel to fly on the event and some resereve, but not more. Take care for your payload, if you will fly with it.

Normal landing:



„Sarajevo” landing:



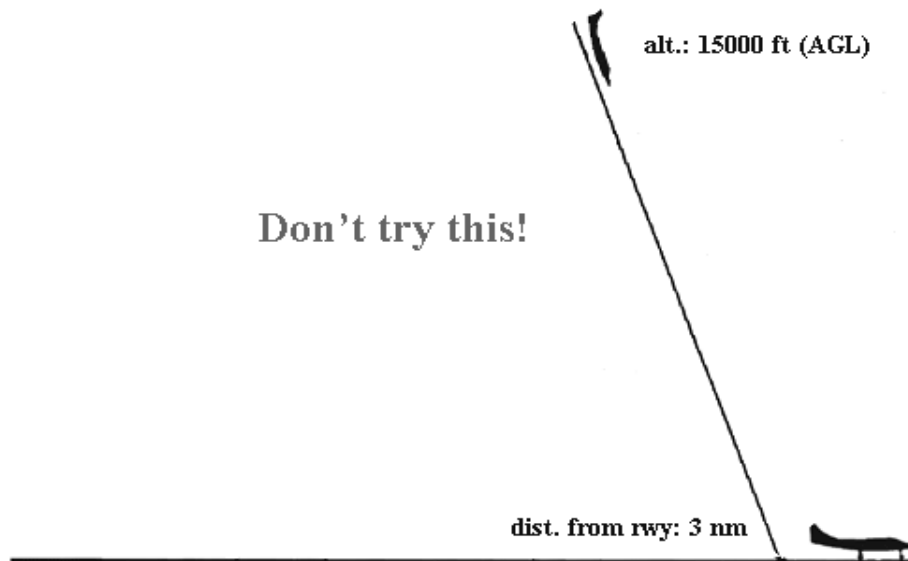
(Altitude and speed for Ilyushin Il-76TD Candid. If you're flyin another type, see your aircraft's manual for proper datas.)

As you can see, you have to descend closer to the airport (or with other words later with time) and/or from higher altitude. Take care of your speed and descend rate. Be ready to go around if something goes wrong.

If you are close to the runway, pick up your aircraft's nose and loose your speed to land safely.

If you are TOO close to the runway: begin to pray and die with honour. And please **DON'T SCREAM!** :D

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Bad idea! It's suicide:

*If you begin descend too late or too close to the airport or from too high altitude, you won't be able to land safely. So you **must** have experience with „Sarajevo” landing: try it a couple of times before the event!*

VERY IMPORTANT! In case of bad weather conditions:

If you can't fly safely close to the ground (in case of clouds or fog) you have to climb to a safe altitude and report it to the mission controll. In this case the event will be finished without the terrain following part for you.

Pilots flying aircrafts with special equipments (for example radars which are able to map their vicinity) can follow their low level flight – for their own risk. :)

MISSION COMMAND:

On the whole route LHCC_mil_CTR or „Stone” will be in charge, but maybe we will have LQSA_TWR for safe landing is Sarajevo.

Thank you very much to join our event and have a safe flight!

PS.: If this event will be succesfull (without casualties :D), we will do more between larger mountains with other divisions SOD's.

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