

General aviation safety

- The following safety related material is a joint project between Icelandic Transport Authority (ICETRA) and the Icelandic Aeroclub (FMI).
- The aim is to emphasize safety issues that can improve safety in general aviation.
- Every pilot is responsible for the safety of his or her aircraft and those on board.
- The privilege of taking safety related decisions on behalf of passengers comes with a high level of responsibility.



Food for thought

It is human to make mistakes and at one time or another we all do. Unfortunately it seems that incidents/accidents cannot be completely prevented but by using the methodology in this presentation we can hopefully make our flying safer.

Let us aim at reducing the number of flights that become statistics in incident/accident reports.

Below is a list of some of the common factors in incidents/accidents that could have been prevented with proper flight preparation, decision making in flight and maintenance of flying skills:

Loss of control in flight (LOC-I)

Loss of control on the ground, i.e. in cross winds

Running out of fuel or wrong fuel management

Aircraft performance less than expected

Stalls

Off airport landings

Low flying.



Your limits

Let's say that you have not flown a lot from your last check. Do you consider doing three take offs and landings enough to load the family on board and fly across the country?

You would be legal but that does not mean that you are a safe pilot. Why not shake the dust from the POH and review the important parts of it as well as practice on the aircraft to make sure that you are not only legal but also a safe pilot.

That could prevent you from becoming a statistic in a report.

Keep in mind that your cross wind limit and the published demonstrated cross wind of the aircraft are not necessarily the same.



Self evaluation

One point for each item

SKILLS

- More than 30 hours flown
- More than 20 hours flown
- More than 10 hours flown
- More than 60 landings done
- More than 40 landings done
- More than 20 landings done
- More than 3 types flown
- Flight with FI/FE
- Engine failure training
- Controlled airport experience
- Short field landings
- Soft field landings
- X - wind landings
- Tailwheel landings
- Crosscountry more than 300 km done
- Aerobatic or unusual att. training done UL or sailplane flown
- Do you before flight review your limits in terms of weather and other factors

TOTAL

AIRMANSHIP



Last 12 months

One point for each item

KNOWLEDGE

- POH/AFM studied
- Accident report studied
- EASA OPS Part NCO studied
- AIP studied
- Notams checked before flight
- Attended refresher training
- Attended aviation safety meeting
- Know were to find aviation weather info
- Reviewed recommended practices outside contolled airspace
- Watching web based safety info
- EASA GA web page visited
- Reading on aviation matters
- Detailed flight planning done
- Detailed mass and balance done
- Mental emergency training done
- Attended fly-in/airshow
- Visited ICETRA homepage
- Viewed ICETRA safety material on alltumflug.is

TOTAL



Your limits

Do you set personal safety markers for yourself regarding flying currency and flight conditions that you regularly review and adhere to?

Setting personal safety markers reduce the likelihood that you convince yourself to depart in condition that are outside your limits.

It is a good practice to add „if the conditions are within limits“ when planning a VFR flight in advance.

Consider making a contract between you, your passengers and you family.



My VFR contract

Pilot

Name: _____

Ratings:

SEP/MEP valid until: _____

Medical valid until: _____

My recency:

Flt time last 30/90 days ___/___

On type last 30/90 days ___/___

T/O - land. last 30/90 days _____

Weather

Max wind _____

Max X-wind _____

Min. ceiling
day _____ night _____

Min. visibility
day _____ night _____

Runway

Min. length _____

Min. width _____

Note: Density altitude is
pressure altitude (1013 hPa)
plus app. 121 feet per degree
C above ISA

Note. Grass, gravel and soft
surface can increase T/O run
considerably.

Aircraft

Min. reserves (hr:min)

Day _____:_____

Night _____:_____

I will

- Only fly when I have kept myself up to date with the limits, performance, normal and non-normal procedures for my a/c.
- Obtain appropriate experience and knowledge if I fly another type of a/c
- Have the necessary charts/GPS on board for navigation
- Have the appropriate survival equipment on board for the area to be overflown.
- Update my safety markers as appropriate.



Flight preparation

Is the license valid? Is the relevant rating valid? Is the medical valid?

Do you have three take offs and landings in the last 90 days.

Are you familiar with the relevant procedures in the POH?

Is it ascertained that the a/c will be within weight and balance limits?

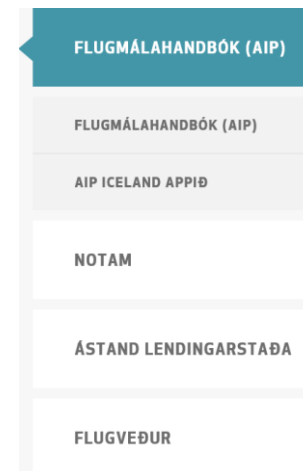
Do you have the appropriate charts for the route to be flown?



Flight preparation

Is it ascertained that the aircraft's performance is sufficient, taking into account the surface condition of planned airfields/landing sites and density altitude?

[Isavia](#)



Condition of uncontrolled landing strips

A facebook page in Icelandic, but inquiries in English will surely be answered.



Flight preparation

<http://www.vedur.is/vedur/flugvedur/>

<http://www.road.is/>

Is the weather within your limits?

Is the X-wind within your limits?

Do you make a flight plan with fuel calculation?



Flight preparation

Do you take into account the winds aloft for your planned flight altitude/flight level?

Are you familiar with possible alternate airfields along your route of flight?

Do you estimate minimum altitude to cross water, lava fields etc. to be able to glide to a safer area in case of emergency?

ARE YOU FIT TO FLY OR WOULD IT BE SENSIBLE TO DO SOME FLYING PRACTICE, ALONE OR WITH AN INSTRUCTOR?



Before flight

Is the aircraft airworthy and insured?

Do you do the preflight inspection in accordance with the POH?

How do you confirm that there is sufficient fuel in the tanks for the flight?

Are you content with the condition of the aircraft?

Do you have the appropriate survival equipment on board taking into account the area to be overflown?



Before flight

Are you and your passengers appropriately dressed for the season and area to be overflown?

Are wing and tail surfaces clear of dirt, snow or ice?

Is the weather condition within your limits?

Is the runway condition acceptable?

Do you make a flight plan, to ensure alerting service, for flight outside controlled airspace even if it is not required?



Departure

Do you do the run up in accordance with the POH, taking into account the surface condition where you do the run up?

Do you give the passengers a safety briefing?

Do you report on the appropriate frequency before you taxi out at non-towered airfields, which runway you are going to use and in which direction you plan to fly?

Do you use the whole runway or do you take off from intersection where possible?



Take off

Do you visualize a point on the runway where you reject the take off if acceleration is not normal or there is an indication that continuing the take off may not be safe? (One rule of thumb is the 50/70 rule. By 50% of the runway 70% of takeoff speed should have been gained.

Have you reviewed reaction to an engine failure during or shortly after take off? Land in a forward direction or return?

What is your minimum altitude to return to the departure airfield in case of an engine failure?



In flight

Do you have the priorities in flight in order?

Aviate, Navigate, Communicate?

Are the flight conditions as you expected?

Is remaining fuel according to plan?

Do you report position, altitude/flight level and direction of flight as appropriate?

Are you up to date in the emergency procedures?



Approach

Have you checked if there are any local procedures for the destination airfield?

Do you report in a timely manner on the appropriate frequency when approaching the airfield/landing site?

Do you plan the approach in your mind?

Do you overfly the airfield/landing site above traffic circuit altitude to check conditions if you can not get the information over the radio?



Approach

Are you prepared to abort the approach if required?

Do you overfly the runway at low altitude if it's condition is not known to you?

Do you have an alternate airfield/landing site in mind if landing at planned destination is not feasible?



Before landing

Do you mentally brief yourself for the landing and possible go-around?

Do you do a mental safety check before landing e.g. **GUMPS**?

- **G** Gas – correct tank selected, fuel pump on if applicable
- **U** Undercarriage – gear down if applicable
- **M** Mixture – correct for the conditions
- **P** Prop – fine pitch if applicable
- **S** Switches – as applicable.



Landing

Do you fly a stable final approach to get a feeling for the wind if there is x-wind condition?

Is the wind within your limits?

Have you decided how far down the runway it is safe to land in case you have a long landing?

Are you ready for a go-around?

Are you up to date in the go-around procedure, pitch, power, flaps, gear etc?



After landing

Do you do the after landing and shut down procedure in accordance with the POH?

Do you leave the aircraft in the same condition as you would like to come to it when you go flying?

Do you remember to close your flight plan if applicable?.



Safety reporting

- It is important that pilots report to ICETRA if becoming aware of any issues endangering aviation safety.
- Same applies to any aviation related issues that pilots believe not to be in order.
- Reports can be made to
- <https://www.icetra.is/aviation/aip-iceland/occurrence-reporting/>
- Occurrence Reports are treated confidentially to maintain full and free reporting from the aviation community and to protect the identity of the individual in accordance with EU legislation.
- Received information can only be used for the purpose of maintaining or improving aviation safety.



June 2019

END

