ProblemLanding (V2.1)

Flight created on 30.05.2021 (11.10.2023 V2.0 English)
(Amended on 08.01.2024, V2.1: Many translation errors corrected.)

Estimated flight time 45min

Difficulty level hard

Task: Land without control

Introduction

This mission is inspired by a disaster movie where the control
system completely failed.

The pilots could only control by means of power changes of the
individual engines.
In addition, elevator trim, flaps and landing gear still work.

Unfortunately, the aircraft went off the runway during landing and
there were casualties.
The air accident investigators now want to know if the pilots
failed or if a proper landing is possible.

So they assign your boss to do the test flight.
Your boss chooses his best pilot: You!

At the beginning you choose if you want to fly with/without help:

1) "With help" activates mission compass, approach gates and
further help.
2) "Without help" guides you only until the test launch, after
that no further help. (default)

After that you choose the plane:

1) L049 / 4-engine machine (standard)
2) 10A / 2-engine machine
3) Choose any other multi-engine machine
4) Choose any machine (single or multi-engine)
4) Is special, because in this flight side and aileron trim are
allowed.
Reason: With 1-engine machines you cannot control with different
engine settings.
So here also side and aileron trim are allowed.
Du can also choose any multi-engine aircraft in flight variant
"4)", with the facilitation of being allowed to use the trim.

Takeoff

You are at the Mojave Air And Space Port (KMHV) runway 30.

Take off, climb to 10000 feet and fly heading 090.

Remember, depending on the aircraft, to lean the mixture, adjust power and propeller RPM, and retract flaps/gear.

Until the test launch, you may use all controls normally, including autopilot.

Flight

Whether with/without assistance, you will be guided to the test launch with entry signs and gates.

Entry signs point with the arrow to the next turn point.

The gates show the correct starting direction.

(Distant side view of the gates.)

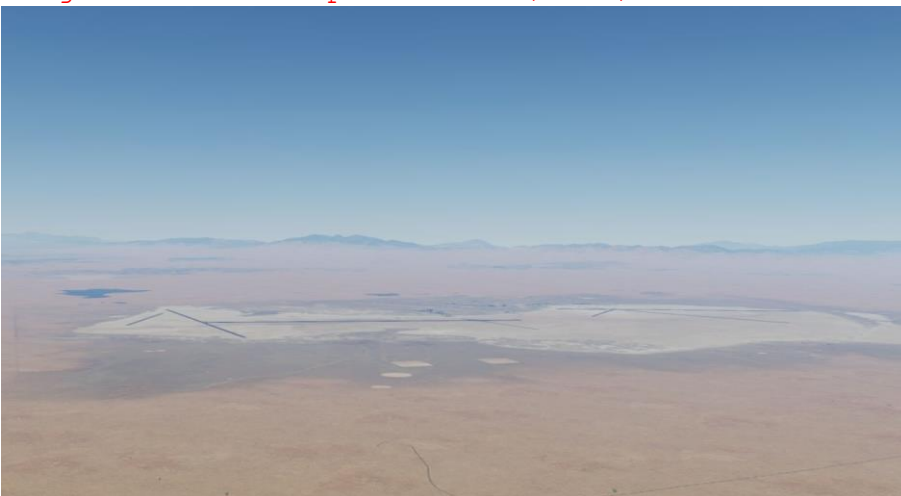This is what a good approach to takeoff looks like.

(After the 4th gate the test starts).

Autopilot must be completely switched off!
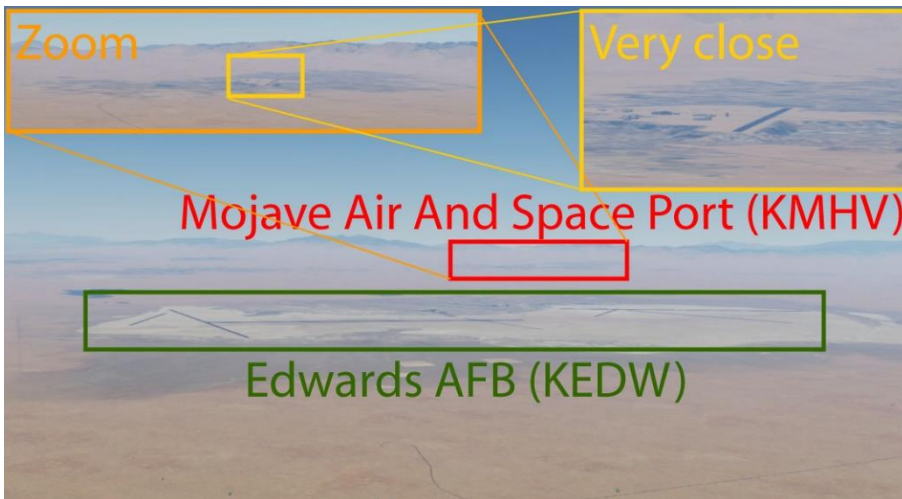From then on no control movements, no trim!

Test launch

Before you is the airport "Edwards AFB (KEDW)".
Behind it on the right is the destination airport:
"Mojave Air And Space Port (KMHV)".

Don't recognize anything above? See below:

Maintain heading 270-290 and descend to 5000 feet.
Slow down, extend flaps and landing gear.

As soon as you see the runway, align with it and land.
(Runway 30, so on final approach heading 300).

The approach **with assistance** is much easier
because you can see gates from a distance:

On final approach, it looks something like this:

Try to stay within the green gates.
The red gates show the max. deviation for safe landing.

The flight was too easy?

No wonder, there is no wind.
Crosswinds bring another challenge.
Set the weather for a crosswind of 20 knots, wind direction 215.
Good luck!

Info:
In the meantime, I have successfully tested the flight with many airplanes:

Jet aircraft:
Basically difficult because jet engines react very sluggishly to power changes.
6-engines
- AN-225 (very sluggish control, extremely heavy)
4- Engines
- A340, 747, AN-124 (heavy, but feasible)
3- Engines
- DC-10, 727 (both extremely heavy, almost impossible)
2- Engines
- 737 (relatively light)

Propeller aircraft:
Basically light because propeller engines respond quickly to power changes.
4- Engines
- L049
2- Engines
- 10A, DC3, Baron58
1- Motor
- Mooney Acclaim, DR400 (have only rudder trim)

I hope you enjoyed this flight, if so please give feedback to p3d@andi20.ch . Also send error messages (spelling mistakes, wrong information, etc.) to p3d@andi20.ch, I appreciate any feedback.