

Airbus Prosky
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Quality Assurance Doc 9906 Vol 1

Step 3: Conceptual design

Step 4: Stakeholders review



Conceptual design Step 3



Conceptual design



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- Who ? A licensed designated procedure designer; but not only
- A conceptual design is drafted with the key elements considering the overall strategy
- The more inputs from data collection, the more likely the conceptual design will correspond to stakeholders expectations
- To increase efficiency, it is recommended having exchanges with Operators/ATC, even at this stage (*part of data collection*)
- Coordination with interested/affected stakeholders should continue throughout the conceptual phase and the subsequent design phase of this process.

Inputs from the Initiation Step

Conceptual design



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Inputs

- Data collected during Step 1 & Step 2
- Note: IFP Software tool (as applicable) to be updated to include all relevant input data such as terrain data, airspace data

Responsible

- Procedure designer

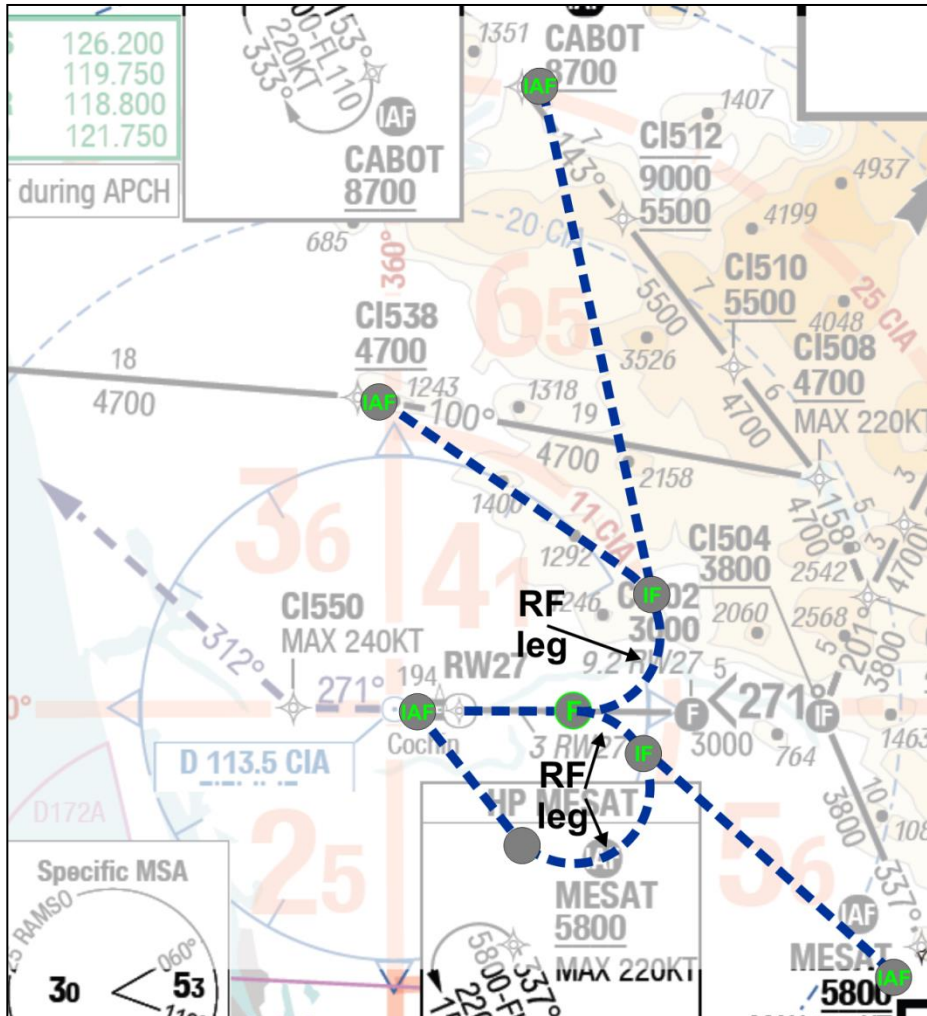
Participants

- The procedure designer is responsible for the conceptual design, with the support of additional experts as required (pilots, ATCOs) within the stakeholders

Example of conceptual design documentation



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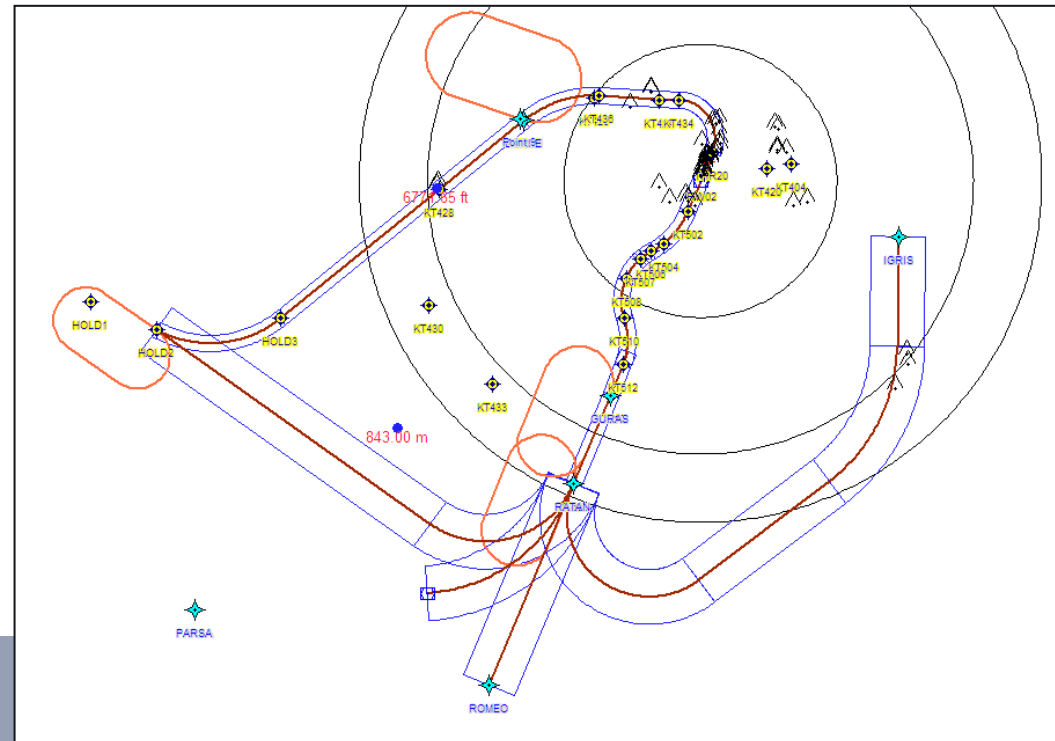


- Study different options
- Use existing material
- Request additional info/data if needed
- Search for expected results
 - Minima
 - Altitude and speed constraints
 - Track distance reduction
 - Increase payload...

Create conceptual design

Documentation

- The initial conceptual design is documented in a format suitable to the organisation and is used as a baseline for discussion with all stakeholders during the Conceptual Design Review Meeting (i.e. Step 4)
- The different design iterations and reasons for selected options should be recorded



Stakeholder Review Step 4



Conceptual design review by stakeholders

❑ The objective is to :

- Provide a forum in which all stakeholders can reach a consensus
- Make sure all necessary inputs are gathered from recognized sources
- Discuss and agree on the final conceptual design
- Establish a timeline for the implementation of the proposed PBN procedures based on available resources

❑ The following topics should be addressed :

- Roles and responsibilities of the various stakeholders
- Preliminary assessment of the environmental impact, when applicable
- Agree on final PBN procedure design concept and design criteria to be used
- Status on project timeline based on available resources and other projects that may have an impact on procedure implementation

A “Kick Off Meeting” should be organized

Conceptual design review by stakeholders

Responsible:

- Procedure designer & Designer's Management

Participants: All stakeholders

- State aviation authorities, air navigation or air traffic service providers, airport authorities, operator(s)...
- Representative of local communities, as relevant, should be involved to identify any issue early in the process

Review



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- Formally approved conceptual design or formal decision to discontinue

Go or No Go?



- Planned implementation AIRAC date, based on available resources and any other technical/ operational/ training constraints
- This step must be completed and obtain all identified stakeholders agreement to pursue the project
- This is not an approval of the procedures but a commitment to the scope and a validation of the assumptions and process.**

Conceptual design review by stakeholders

Documentation

- ❑ The discussions and outcomes of the conceptual design review, including the agreed procedure design concept, should be documented in a format suitable to the organisation
 - The reasons for any required changes to the initial proposal(s) should be recorded
 - Having this document or the minutes of meeting validated by the stakeholders might be considered

- ❑ **The agreed conceptual design will be used as a baseline for the detailed design phase**

Outputs



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Project specifications document

Validated by:

- State
- Operators
- Airport
- Designing entity (if not state)
- ATC

Conclusion



Conclusion

- ❑ The conceptual design is under the responsibility of the procedure designer
- ❑ It is based on the inputs of the stakeholders gathered at project initiation and overall strategy
- ❑ It should be discussed and agreed with all stakeholders through a collaborative process BEFORE the detailed design phase is launched
 - In too many projects, the design is shared with stakeholders very late in the process leading to:
 - Publication not meeting the operational requirements
 - Rework of the procedure late in the process leading to significant workload for the designers and cost for the organization
- ❑ It is strongly recommended to keep trace of the discussions and rejected options to facilitate procedure approval and to be used as lessons learnt

Conclusion – State Authority responsibilities

- To provide the Procedure Design regulation to be used (e.g. ICAO 8168, ICAO 9905, FAA Order)

- To provide the “Procedure Approval” regulation (e.g. ICAO 9906 process)

- And identify people in charge of:
 - Designing the procedure
 - Verifying the procedure
 - Approving the procedure
 - ...

Quality Assurance Introduction



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Any Questions?

