APAC QUALITY ASSURANCE WEBINAR

DSNA, France organization to support Quality Assurance in IPD

October 27 2020

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Implementing a Quality Assurance System for IPD?

The managing of every stage of a production process to make certain that the goods being produced are of the intended standard.

What are the goods?

The trajectories being designed or maintained.

The Way Points being defined and stored into on board navigation databases.

The coding Path Terminators and the procedure altitudes being published in national AIP.

The stakeholders of the QA are IP designers and data providers.

What are the intended standard of the produced data?

Integrity and accuracy of the data.

Compliance of the data with the users requirements.

Safe integration of the data within the environment (ATC, obstacles, noise).

Implementing a Quality Assurance System for IPD?

The managing of every stage of a production process to make certain that the goods being produced are of the intended standard.

Implementing a QA system in IPD implies providing all IPD stakeholders with training, tools and documents to guide them in order for them to perform each step of the IPD process as expected to reach the goal**.**

This the RESPONSIBILITY of the PROCEDURE DESIGN ENTITY to define , implement and maintain its IPD Quality Assurance System.

Managing Quality goes with increasing SAFETY and EFFICENCY.
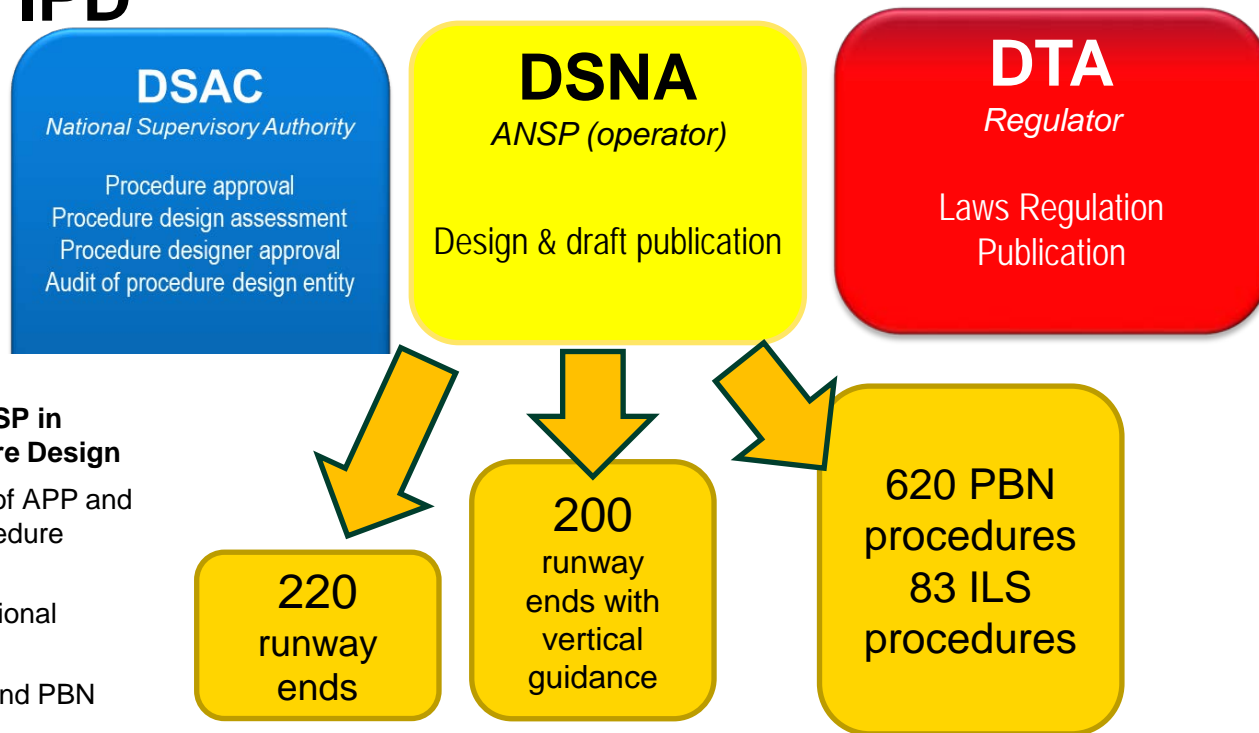
Summary

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1.French Context   2.Important steps for quality   3.DSNA Organization

1. French Context

Airports and IPD

DSAC
National Supervisory Authority

Procedure approval
Procedure design assessment
Procedure designer approval
Audit of procedure design entity

DSNA
ANSP (operator)

Design & draft publication

DTA
Regulator

Laws Regulation
Publication

DSNA is the main French ANSP in terms of Instrument Procedure Design

9 Regional Services in charge of APP and AD ATC also in charge of Procedure Design

3 procedure designers per Regional Service.

81 Airports with Conventional and PBN trajectories

220 runway ends

200 runway ends with vertical guidance

620 PBN procedures 83 ILS procedures

Quality Assurance system : WHY in DSNA context?

TECHNICAL REASONS :

Workload due to massive PBN implementation (European PBN Implementing Rule for 2023)

Complexity of the design process.

Accuracy and integrity requirements for PBN data (in and out)

Increased level of Safety

Periodic Review

Five years Maintenance cycle.

REGULATORY REASONS :

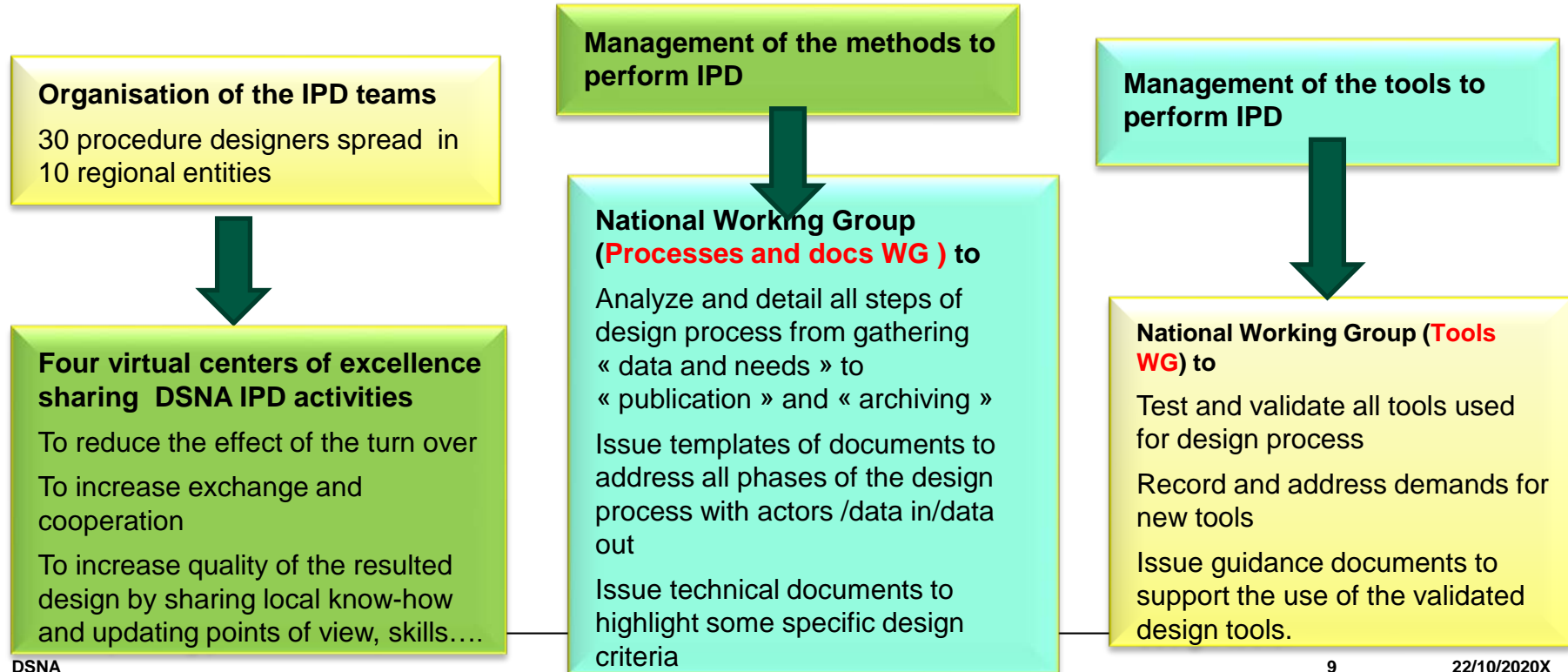Certification of « IPD service » at European level by EASA (European Safety Authorithy)

DSNA must provide proofs of the quality of the IPD service provided.

HUMAN REASONS :

Reduce or mitigate the impact of the high level of turn over among the procedure designers.

Increased number of errors due to PBN context (WP coordinates, coding tables...)
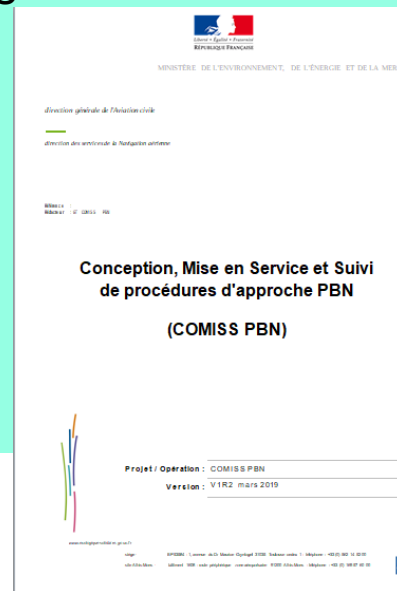
Quality assurance system : HOW in DSNA context?

Organisation of the IPD teams

30 procedure designers spread in 10 regional entities

Management of the methods to perform IPD

Management of the tools to perform IPD

Four virtual centers of excellence sharing DSNA IPD activities

To reduce the effect of the turn over

To increase exchange and cooperation

To increase quality of the resulted design by sharing local know-how and updating points of view, skills….

National Working Group (Processes and docs WG) to

Analyze and detail all steps of design process from gathering « data and needs » to « publication » and « archiving »

Issue templates of documents to address all phases of the design process with actors /data in/data out

Issue technical documents to highlight some specific design criteria

National Working Group (Tools WG) to

Test and validate all tools used for design process

Record and address demands for new tools

Issue guidance documents to support the use of the validated design tools.

2. Important steps for quality and safety

Instrument Flight Procedure Process in ICAO DOC 9906

AIS

Flight Procedure Design process

Maintenance Periodic Review

Data acquisition

Decision

Quality Assurance Manual for Flight Procedure Design

17 identified steps
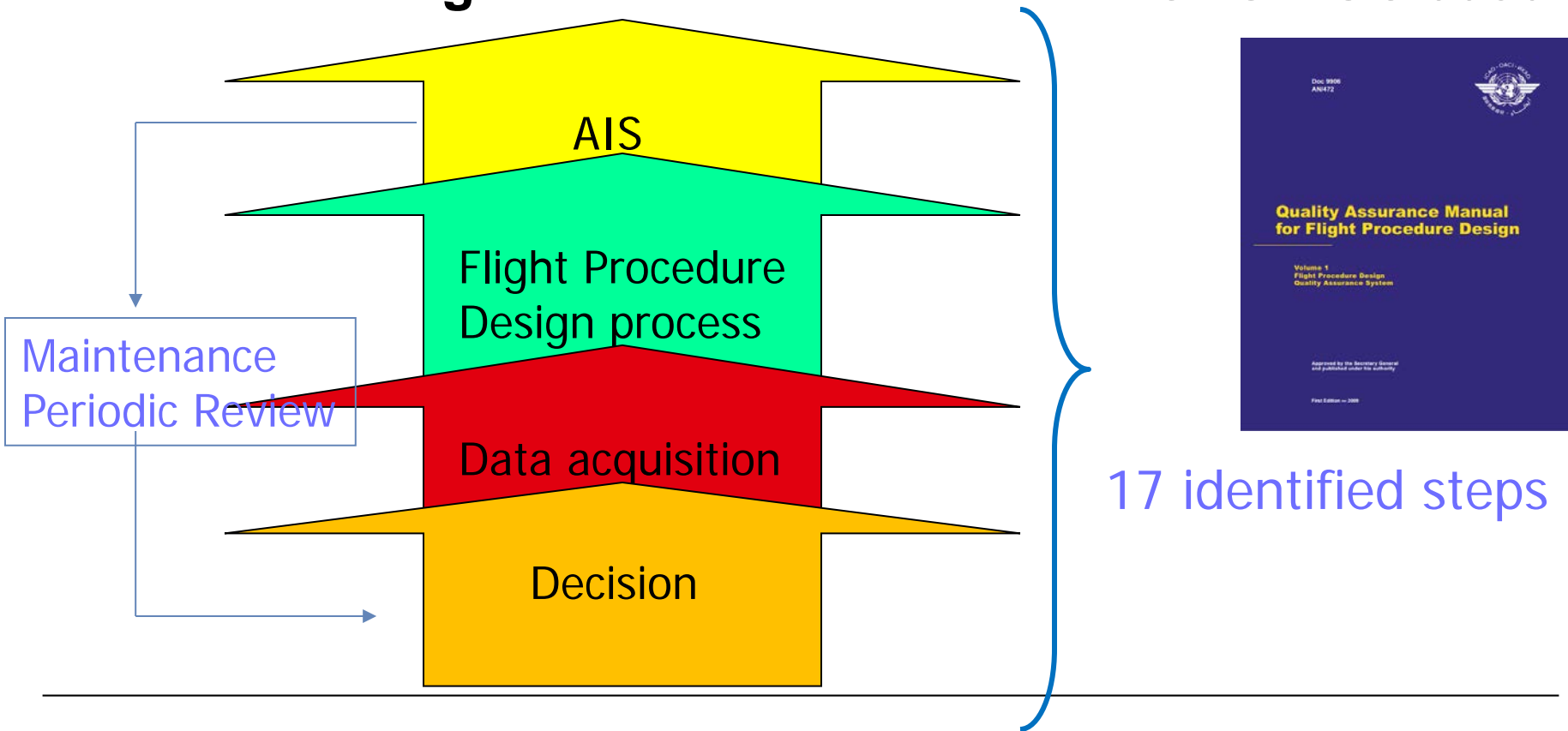
Major/basic steps to improve quality in design process

ANCHOR the design process in a document describing

      all steps,

          actors

               duties of the design process

as defined and accepted by the design entity.

Major/basic steps to improve quality in design process

Template of procedure design study report

Using ONLY validated Tools

Verification step

Guidance material

Good practices for documents management

Using a document management tool platform → create, deliver, and share documents online among **ALL** Procedure Design actors

Create a IPD community

Good practices for documents management

Management tool platform:

a MANDATORY MEDIUM

1. Regulation

2. Specific requirements

3. Training document

4. List of validated tools

5. List and storage of template documents

6. Description of the processes

7. Storage of all published technical report

1. Improve communication among IPD

2. Updated documents

3. Exchange of skill and know-how

4. Improve and consolidate the continuous training of new PD

5. Allow a better management and follow-up of the PBN strategy implementation

6. Contribute to ease telework

3. DSNA organization

Main bodies to support Quality through management and follow-up of the design process

DSNA Steering Committee to assess PBN IFR IPD implementation:

Definition of IPD strategy (PBN)

Rules to support IPD process

Regular assessment of produced quality

    Feedback from Data Houses

DSNA TF responsible of :

Approval of the documents and processes proposed by « Processes and docs WG »

Requirement for **new documents** to be standardized

Approval of the validated tools

Requirement for **new automated features** or tools

Information and training of the PD to use documents tool and perform the IPD process

Processes and docs WG

Validation Tools WG

Conclusion : Price of the Quality in Procedure design

Time and collaboration

Training and regular assessment

Change in working methods

Thank You. Questions ?