




Flight Procedure Design Quality Assurance System

—
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Introduction

Purpose of a Quality Assurance System (QAS)



Ensures accuracy, consistency, safety



Based on ICAO Doc 9906 series

Why QAS is Needed in IFP Design

Direct impact on flight safety

Complex calculations

High consequence of design errors

ICAO Framework for QAS

Doc 9906 Vol. 1–6 guidance

Volume 1 — *Flight Procedure Design Quality Assurance-~~Management~~Management System;*

Volume 2 — *Flight Procedure Designer Training (Development of a Flight Procedure Designer Training Programme);*

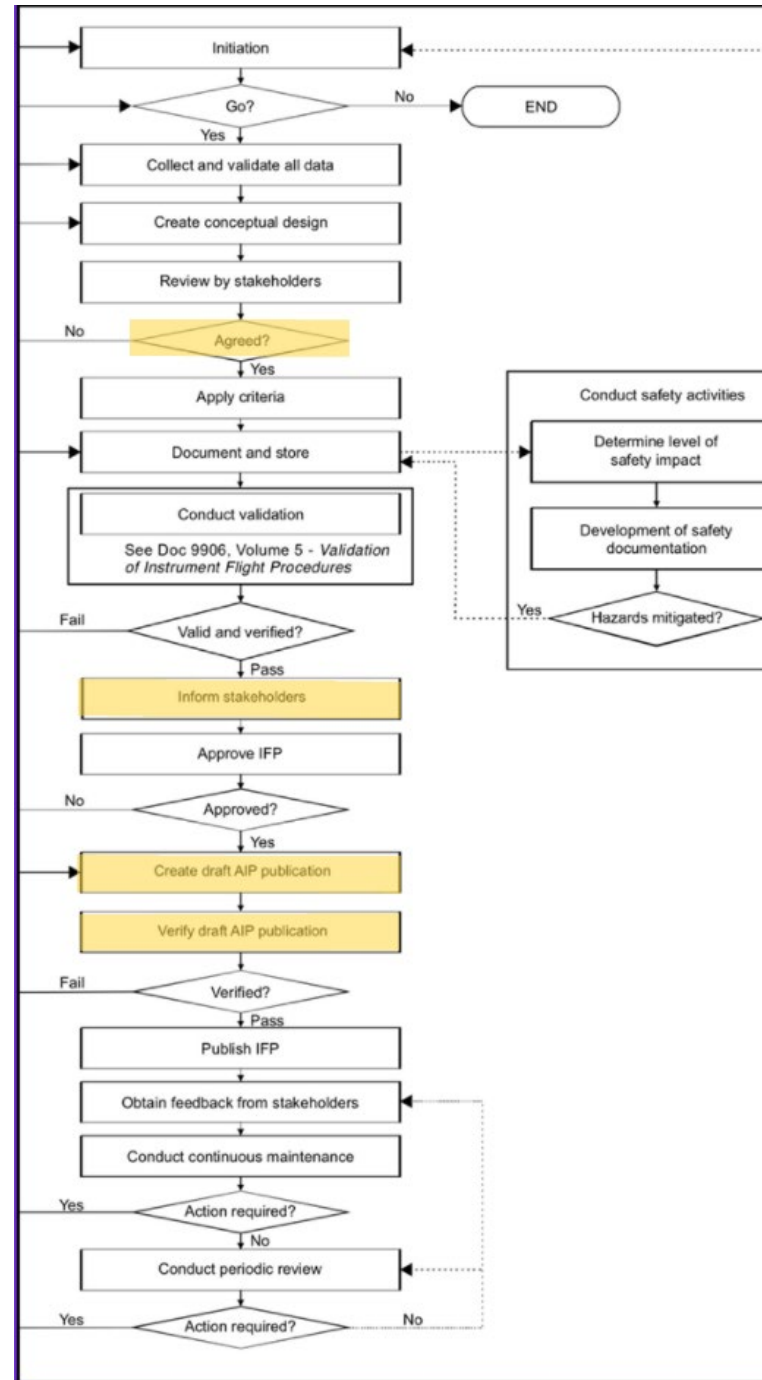
Volume 3 — *Flight Procedure Design Software Validation;*

Volume 4 — *Flight Procedure Design ~~Construction~~ Guidance (forthcoming);*

Volume 5 — *Validation of Instrument Flight Procedures; and*

Volume 6 — *Flight Validation Pilot Training and Evaluation (Development of a Flight Validation Pilot Training Programme).*

QAS Objectives



QAS Components

Structure

Training

Process controls

Review and validation

Documentation

Audits

Organizational Requirements

Defined roles

Independence

Updated regulations access

Version control

Designer Competency & Training

Qualification requirements

PANS-OPS competency

Recurrent training

Competency records

Controlled Design Process

Standard workflow

Data inputs

Tool control

Versioning

Verification & Review

Cross-checking

Compliance checklists

Review documentation

Validation

Desktop/flight validation

Flyability

Workload assessment

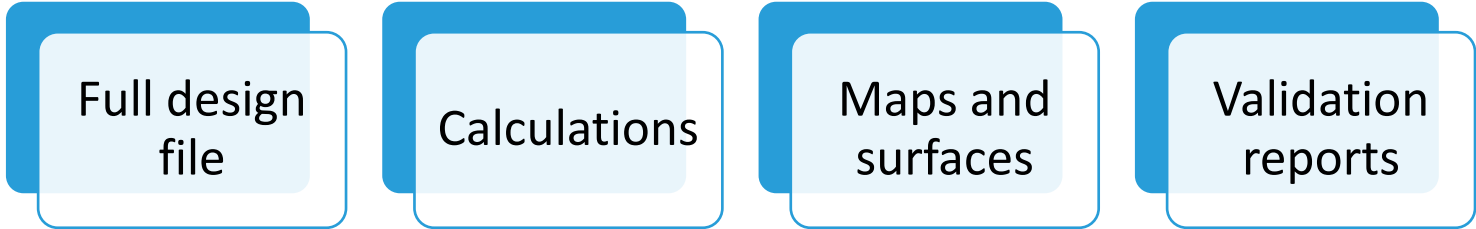
Safety Assessment

Hazard ID

Mitigations

Risk classification

Documentation & Record Keeping



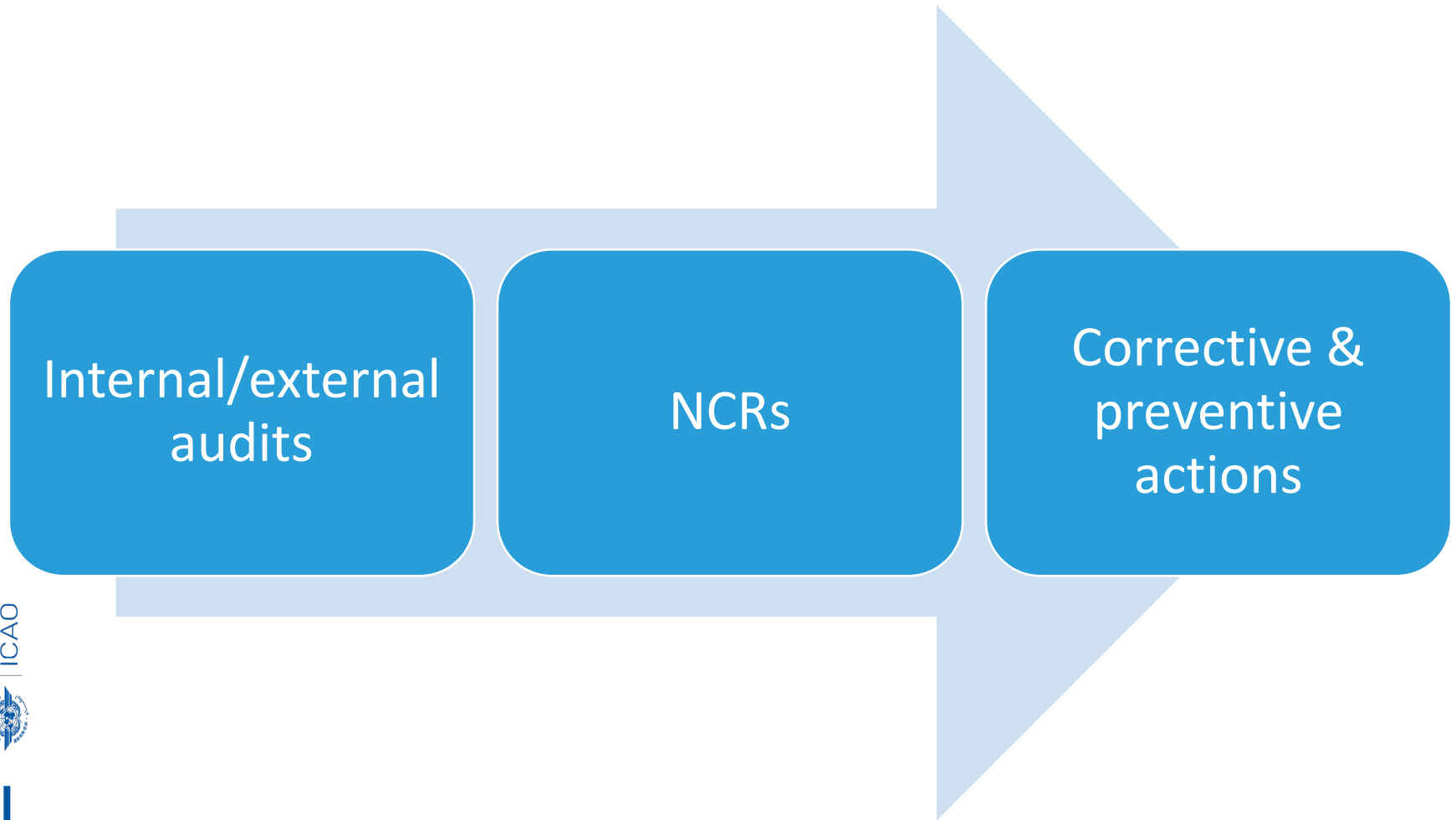
Full design
file

Calculations

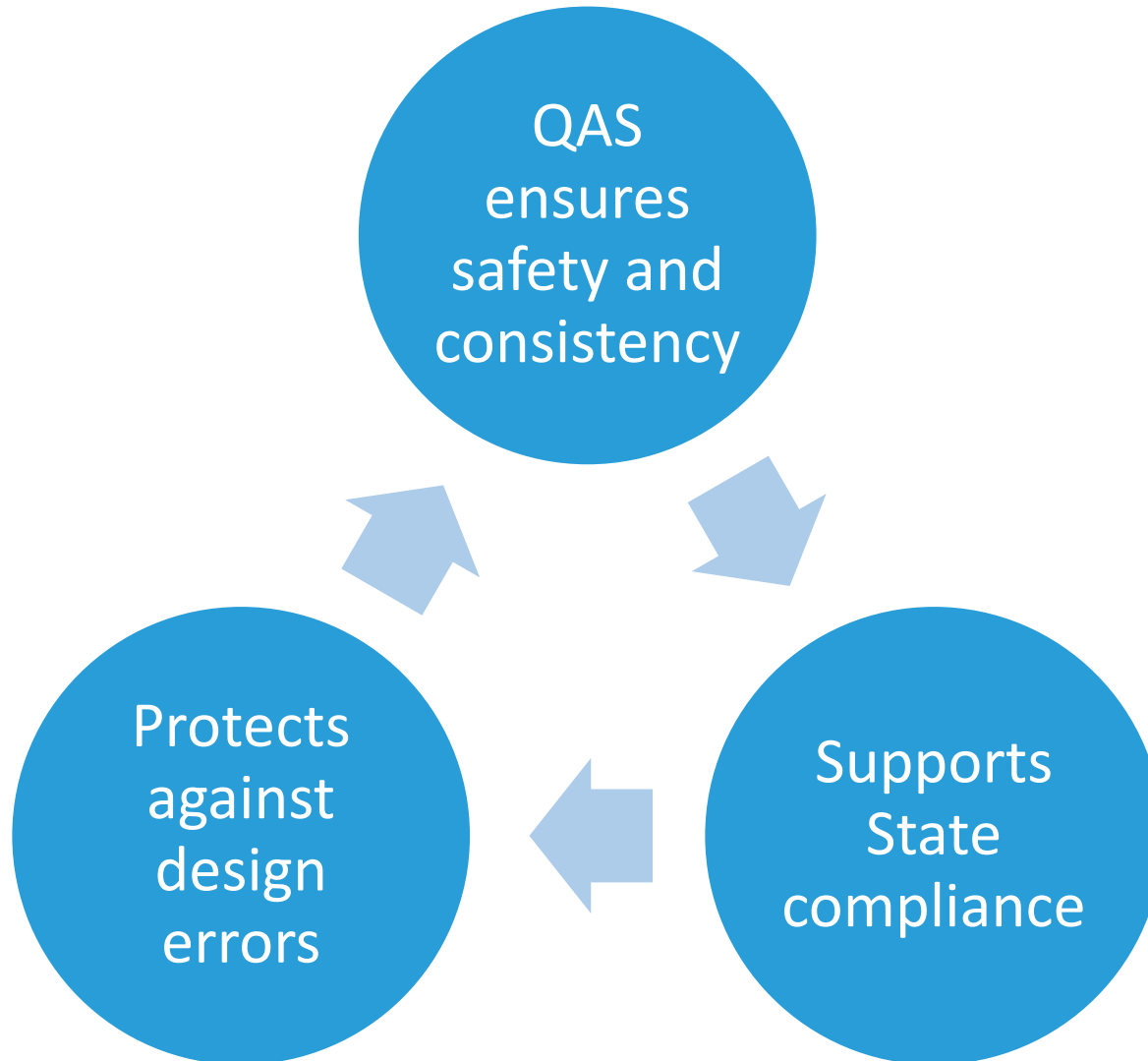
Maps and
surfaces

Validation
reports

Audit & Continuous Improvement



Summary







Thank You!

