

60th ICASC meeting minutes  
Durban, South Africa  
June 18-24, 2022

**ICASC Members Present**

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**Executive Secretariat**

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**ICASC members absent**

Joseph Doubleday, Chairman	<a href="mailto:joe.doubleday@amiaviation.com">joe.doubleday@amiaviation.com</a>
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Dave Powell (Honorary Member)	<a href="mailto:davpowell@gmail.com">davpowell@gmail.com</a>

**Guest**

Tsunoda Satoko	
William Selebogo	
Minoru Komoru	<a href="mailto:komuro.minoru@jrnsa.or.jp">komuro.minoru@jrnsa.or.jp</a>

**1. Opening remarks:** Asbjorn Madsen

Meeting opened at 09:00 on Saturday 18 June 2022.

**2. Member Updates**

## **Florence Jacolot**

Since last ICASC meetings, normal operations at DSNA.

DSNA has entered into NDB removal and VOR MON rationalization with 24 VOR out of the existing 105 scheduled to be removed from now til 2024 as a consequence of the EASA regulation to have operations 100% PBN in Europe by 2030.

Due to this removal, many approaches procedures including ILS procedures with conventional initial and missed approach need to be replaced with PBN-ILS-PBN procedures.

DSNA Flight inspection is defining whether captures or handovers from PBN to ILS and back requires special checks especially as procedure designers jump into the PBN possibility to have 90° interception of the intermediate final axis (T shaped approaches) to have a unique initial approach chart common between ILS procedure and RNP approach procedure. The whole MON concept is being reviewed also to make sure that in case of GNSS major jamming, these PBN ILS PBN procedures remain useable with either DME-DME coverage on the initial and/or Radar coverage available soon in missed approach.

2nd session for FV training course from Ton Wede happened in Toulouse last week.

No progress on our project to replace our oldest KA250 by a 260.

## **Floyd Badsky**

We have caught up with our pre-pandemic project workload and are tackling new projects in the US National Airspace System. We have increased our capacity for new and amended procedures by 140% as of April 1, 2022. We have also moved all task due dates forward 60 days to give us a large pad before expiration.

We have published draft policy which is in final coordination for contracting UAS for FAA missions such as:

- Infrastructure Inspection
- Facility Radio Frequency (RF) Engineering/Calibration
- Flight Inspection
- RFI Locating
- RDT&E
- Familiarization
- Contingency Response

We are in the process of acquiring an additional four Challenger 605 or 650 aircraft to replace our aging Lear 60 and Challenger 601 fleet (four of six LR 60s have been retired). Our first two previously owned Challenger 605s have arrived. A third Challenger aircraft has been sourced and is in the acquisition process. Our Challenger 604 is undergoing an upgrade to Collins Aerospace Fusion, along with new Inertial Reference Units and our latest flight inspection system. The added Challenger aircraft will be equipped with the next generation of flight inspection system that includes updated software, new television camera positioning system, and an integrated laser altimeter, known as the Aircraft Modular Mission System (AMMS) which will be used for flight inspection and research and development.

## **Fabrizio Maracich**

In ENAV flight inspection and validation operations have raised above 2019 levels, confirming the recovering trend seen with the winding down of the pandemic effects. Certain operations are affected by the war in Ukraine as well, but with minimal impact so far.

New contracts for calibration as well as validation have been signed and are active. A midlife update of the Flight Inspection System has been completed on all of our systems and entered operational stage.

Italy's plan to reduce the number of VORs and NBDs is ongoing. On the ICAO side the last IFPP meeting brought the cycle 15 to an end with the endorsement of many updates to PANS-OPS and with endorsement of DOC 9906 second edition. Other interesting items were endorsed: a study to finally get rid of MAG indications and use only True indications as a NAV reference (multidisciplinary intervention from other Panels is required and coordination is taking place). Also an expansion of RNP-AR concept has been endorsed for further study and the relevant Job Card prepared for ANC approval.

## **Tom Wede**

Since the last ICASC meeting, business went on with ops normal within FCS. Our older aircraft D-CFME has been subject to an in-depth overhaul, with its FIS been brought up to the latest status like the one installed on our latest aircraft, D-CFMF. Certification from our Regulator for ME's FIS upgrade came in at the end of May.

Our strategic alliance partner ACAM-FCS is running strong in the Far East market, with a very interesting Flight Validation Project in Cambodia just complete mid-May. Part of that Flight Validation project were RNAV to Visual procedures at Sihanoukville Airport, which worked out very nice. RNAV to Visual, or RNP (VPT) in the future, becoming more and more popular in our community; to that end it was a very interesting project for all parties involved.

In the very near future FCS is involved in 2 other very interesting Flight Validation projects, featuring RNP AR procedures; one in Singapore next week, the other in Lisbon, Portugal, in July.

Our drone project picked up speed as well, with a major project with DFS to use our drone as a replacement for their hydraulic mast measurements under way, to start next month at some major airports in southern Germany.

At the beginning of June FCS started to provide Flight Validation training to our colleagues from the French DSNA / DTI for their second group of students, after the first batch has been trained in that role in the autumn of last year. Again, it has been a very productive training for all involved, as our French colleagues, like last year, took the very laudable approach of assigning a procedure designer to the course as well. The presence of flight validation pilots, flight inspectors and procedure designers in one room made for a very productive learning experience.

Last but not least FCS is involved in some changes to its internal management structure, opening the path for the next, younger generation of department leaders.

## Morten Grandt

- Traffic is recovering, partly even above 2019
  - Reims ACC capacity measures due to 4 Flight cut-over
  - Flow shifts from Eastern Europe due to UKR airspace closure
- PBN implementation ongoing
  - reduction of VOR infrastructure down to a so-called Minimum Operational Network (51 today to 30 in 2032; even less beyond); existing VORs are replaced by stand-alone DME
  - Need for inspection of RNAV capabilities provided by terrestrial nav aids, i.e. DME and VOR
- Transition to green energy sources, i.e. sun and wind-power
  - Long debate in Germany on the potential effects of wind turbines on VOR signals
  - Report of WERAN plus project led by Physical-Technical Federal Institute shows less disturbance than so far expected based on existing models (--> presentation of Ralf Eichhorn at IFIS)
  - New method developed for identification of sources of disturbances (Doppler Cross-Bearing)
- Radio Frequency Interference
  - Objective: Ensure resilience of military but also civil navigation infrastructure against jamming
  - Discussion with German Air Force and FCS about future terrestrial-based flight inspection methods
- ILS REFI program
  - Prediction of performance indicators based on ground measurements (based on experience made by LVNL and Dutch NLR)
- ILS Navaid Drone
  - Better ground-based measurements

### **Sigurd Bjelkarov**

Since the last meeting we have finalized the three Mid Life Updates for our customer ENAV.

In addition we have completed the final acceptance of the Citation Longitude in Wichita and we have flown the aircraft over to Japan for delivery.

Two UNIFIS G2 systems planned for installation in new Piaggio P180 aircrafts have been through factory acceptance with our customer and a third UNIFIS G2 is currently in final assembly at our factory.

Since most COVID restrictions are being lifted around the world we have been able to finally visit several of our customers again for annual overhaul, support or on-site training.

In Norway all restrictions from COVID was removed from middle of February and the Norwegian government from May on treat COVID the same way as a normal cold or flu. Even people testing positive does not need to stay at home as long as they are not feeling sick

### **3. Minutes from last meeting**

Minutes from the 59th ICASC meeting were approved with one change. Remove Ralf Bertsch from members present. The meeting minutes were updated and posted to the ICASC website on 06/26/2022.

#### 4. Review Action Items

- a. 14-06 – Sileno is working the IFIS cookbook (IFIS planning book). Brad has a copy of a planning book from 2013.
- b. 14-07A and 14-07B – no updates.
- c. 14-08A – The certificates turned out good for attending the 21<sup>st</sup> IFIS.
  - 1. Put this in the cookbook to issue in future IFIS meetings.
  - 2. Make this standard issue for all attendees versus just to provide for those that request a certificate.
- d. 14-08A –
  - 1. Changed the wording from “training” to “workshop”
  - 2. ICASC could hold a workshop on Friday afternoon after the IFIS closes
  - 3. Do not reduce coffee and lunch breaks to create space for a workshop. Networking is of importance for IFIS attendees.
  - 4. Discussed on having the workshop Monday morning, but decided it would not be good because IFIS would probably still have a slow start.
  - 5. Topics for a workshop are CRM and Flight Validation.
  - 6. The workshops could be a fundraising for ICASC by charging a nominal fee to attend the workshop.
  - 7. Could have a workshop in parallel with a technical IFIS session.
- e. 14-10 – combine with 14-08B.
- f. 17-05 – ICASC PowerPoint
  - 1. Brad has a copy of the 2022 IFIS PowerPoint presentation in his ICASC files
  - 2. The status was changed to continuous open.
- g. 17-06 – Brad and Mike Db will work on the wording when the new website is created.
- h. 17-15
  - 1. Asbjorn is updating a tab on the Meeting Overview Update spreadsheet after each meeting.
  - 2. Brad uploads that file to the ICASC website after each meeting.
  - 3. Item is closed.
- i. 18-04 – no updates. Continuous open.
- j. 18-07 – Feedback forms
  - 1. Christo captured this feedback form and made it electronic on a website.
- k. 19-07 –
  - 1. Will update the website when the new website is created.
  - 2. Took an updated picture of the ICASC committee to update the committee photo on the website.
- l. 19-08 – Tom Wede sent Brad an update previously, but the website still has the outdated Bio. Tom re-sent Brad the update, and the website was updated with the new biography information.

## 5. Financial report

The ICASC fund beginning balance is \$674.78. We purchased the appreciation plaque at a cost of \$28.00. The ending balance is \$646.78. No inputs or outputs since last meeting.

## 6. Post 21st IFIS Discussion

### a. Security Badges

1. Last minute requirement to get the badges
2. Badges couldn't have large names or country of origin . Large names or participants country or origin are required for networking

### b. Attendance

1. 177 paid attendees
2. About 190 expected
3. Contact regional ICAO office and provide a letter of invitation. Let the letter of invitation filter down.
4. Academia appreciated the quality of papers

### c. Inputs and improvements

1. Transportation
  - a) Small and tight
  - b) Put a sign in the hotels where transportation is to pickup participants
  - c) Back door was locked when being dropped off, and getting it unlocked took some time.
  - d) More convenient to have hotel attached to convention center. Hilton was attached to the International Convention Center, but closed for COVID and remodel. Not open during IFIS.
2. General Discussion
  - a) Good sponsorship support
  - b) The following were interested in ICASC membership
    1. Turkey and they want to host. Brad has the business card, but the person is Kadir Torun, his email address is [a.kadir.torun@dhmi.gov.tr](mailto:a.kadir.torun@dhmi.gov.tr) and his phone number is +90-537 3776541. The website is [www.dhmi.gov.tr](http://www.dhmi.gov.tr). Mr. Torun is a Inspection and Validation/Flight Inspection Technician
    2. Africa region, maybe a North African country
    3. Duncan Aviation was curious on membership
    4. AeroPearl showed interest in rejoining ICASC

## 7. General Discussion

### a. ICASC Webpage

1. May get some Ohio State students to create website
2. Have an automatic reply asking if contacts are to date.
3. Back40 Design is the company that host the website.
4. Back40 Design requires website updated to WordPress. Currently on Javelin server.

### b. Next ICASC Meetings

1. 61<sup>st</sup> ICASC meeting will be in Paris on October 2-6, 2022.
  - a) Meet at Safran at Orly airport
2. 62<sup>nd</sup> ICASC will be in North America March 21-23, 2023
  - a) Location not set yet.
  - b) Will not be at ICAO because of the cost.
3. 63<sup>rd</sup> ICASC will be in Rome on October 3-5, 2023
  - a) This will be the ICASC reunion prior to the meeting.
  - b) Fabrizio will gather information for meeting in Rome.
4. 64<sup>th</sup> ICASC will be in Nagoya, Japan on February 13-15, 2024
  - a) This is the meeting months prior to IFIS
5. 65<sup>th</sup> ICASC will be in Nagoya, Japan on July 19-26, 2024
  - a) The ICASC meeting prior IFIS, IFIS, and the post IFIS meeting.
  - b) The pre IFIS meeting will be on Friday and Saturday July 20 and 21, 2024
  - c) Sunday July 21, 2024 will be a day to individually prepare for IFIS
  - d) IFIS will be Monday July 22 through Friday July 26, 2024 at noon.
  - e) The post IFIS meeting will be on Friday July 26, 2024 right after IFIS to about 1600.
6. 66<sup>th</sup> ICASC meeting will be a virtual meeting in October, 2024.
  - a) This will be a virtual meeting because everyone is only funded to travel twice a year for ICASC meetings.

### c. ICASC Funding

1. ICASC doesn't take any funding from IFIS registration.
  - a) IFIS would have difficulty to send funds to ICASC.
  - b) What would the fund transfer from IFIS to ICASC fund?
2. Should there be a membership fee?
3. Discussed action item 14-08B to host a workshop to raise money for ICASC
  - a) Could have a workshop on Friday afternoon after IFIS.
  - b) Charge extra to go to the workshop, and the workshop would be presented by ICASC.
  - c) IFIS badge would indicate if the participant had paid to attend the workshop.
  - d) Items for possible workshops are
    1. CRM – crew resource management
    2. Flight validation
  - e) Could have a technology workshop at the same time as the other workshop

### d. IFIS Survey

1. Capture 21<sup>st</sup> IFIS results on or about 24 July. Brad
2. Make survey mobile friendly
3. Suggest in future IFIS's to enter to win a prize when submitting a survey.

### e. Future IFIS's

1. Have a static display.
2. Have lunch at the static display
3. More training, standards, and ICAO briefings

## **8. Work Groups**

### **a. IFIS Working Group**

1. Christo is the chairperson of the IFIS working group. The chairperson of the IFIS working group will be the person who was the IFIS chair at the last IFIS.
2. It is about getting other involved with setup, etc.
3. There will be changes daily.
4. Challenges with pay system. Have one person discuss issue with each complaint.
5. Sent motivation to managers to increase attendance
6. Provided a letter of invitation to increase attendance
7. IFIS is to break even, not to make a profit
8. Contract with one company for branding
9. Make it easy for companies supporting IFIS to import goods
10. What are ICASC rules for IFIS
  - a. No money or financial support
  - b. Support with paper selections, past practices, and getting ICAO support.

### **b. Technical Working Group**

### **c. Ops Group**

Discussed RNP-AR validation issues and contingency procedures in case the approach needs to be abandoned before the missed approach point.

## **9. Membership Discussions**

- a. Euiho Kim did not get funding to attend IFIS
- b. Jiyun Lee could not attend IFIS because of funding
- c. Euiho Kim and Jiyun Lee are both viable candidates for ICASC
- d. Konstantin Bashkirov has not been to an ICASC meeting lately, but still wants to be a member.
- e. Mike Spanner – need to see his status. Asbjorn will contact Mike Spanner to see his intentions and to see if there is a replacement.
- f. Onorio will reach out to see if there is any Canadian interest and to see if he could get Canadian interested in ICASC again. Fabrizio will provide Onorio a point of contact.

## **10. Next Meetings**

The 61<sup>st</sup> ICASC meeting will be an in-person meeting in Paris, France on October 4-6, 2022.

The 62<sup>nd</sup> ICASC meeting will be March 21-23, 2023. Location to be determined, but it will be in North America.

## **11. Closing**

Onorio thanked Christo for a very nice IFIS. It was good seeing everyone and networking with those that we have not seen in a couple of years. Thank you for the ICASC members for the support and being moderators. Meeting closed at 14:30.

Brad Elliott  
ICASC Executive Secretariat