

# Review of Argo data performance on the Global Telecommunication System (GTS)

Anh Tran

Oceans Science Branch, DFO

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ADMT 18 –Hamburg, Germany



Fisheries and Oceans  
Canada

Pêches et Océans  
Canada

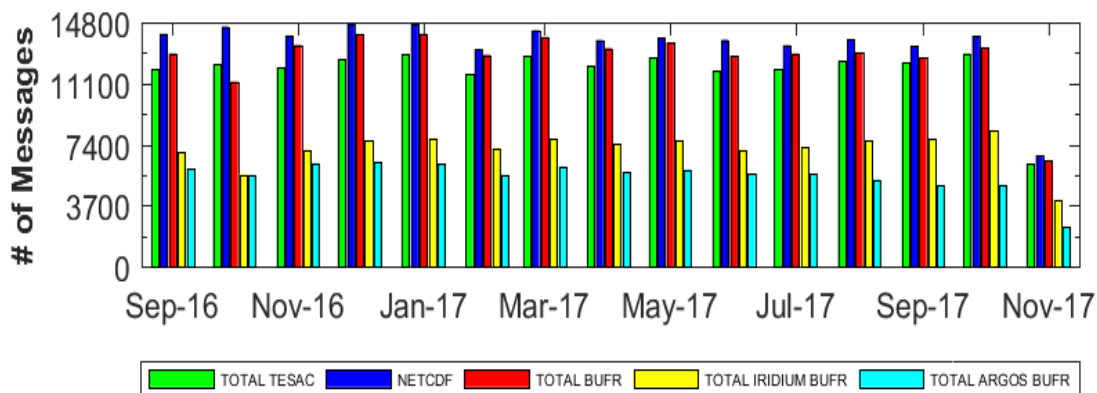
# Outline

- Argo Network overview
- France – Coriolis (Bulletin LFPW & LFX)
- France – CLS ( Bulletin LFW)
- UK – BODC DAC (Bulletin EGRR)
- Japan – JMA DAC(Bulletin RJTD)
- China – CSIO DAC (Bulletin BABJ)
- Korea – KMA DAC ( Bulletin RKSL)
- Australia - CSIRO DAC(Bulletin AMMC)
- India – INCOIS DAC (Bulletin DEMS)
- USA – AOML DAC (Bulletin KWBC)
- Canada – MEDS DAC (Bulletin CWOW)
- Conclusions
- Next step

# Background

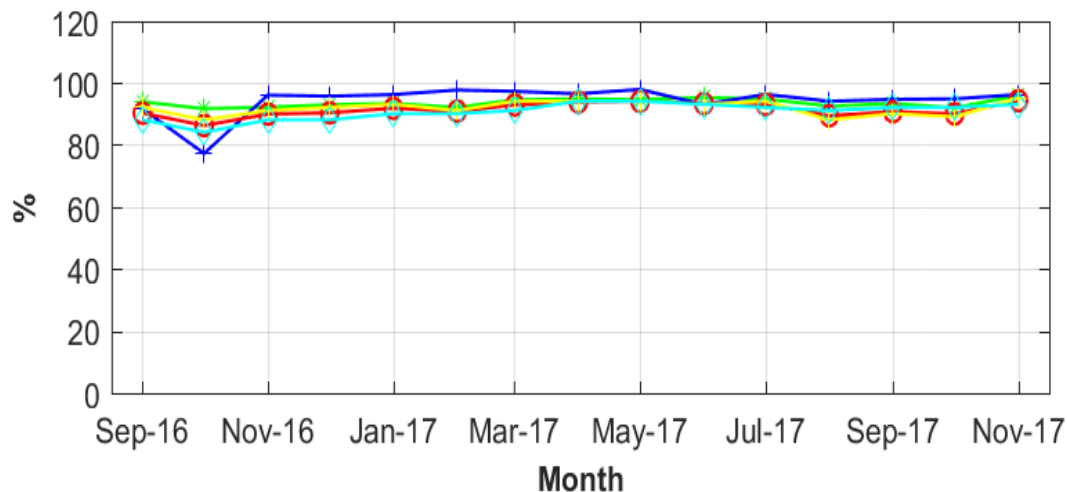
- TESAC data sources:
  - Environment and Climate Change Canada
  - Japan Meteorology Agency (JMA)
  - BSH - Germany
  - NMC - USA
- BUFR data sources:
  - Environment and Climate Change Canada
  - Japan Meteorology Agency (JMA)
- NETCDF file source:
  - ar\_index\_global\_prof.txt at US GDAC

# Argo performance on GTS as of November 15, 2017



Monthly Average between  
Sep 2016 - Oct 2017:

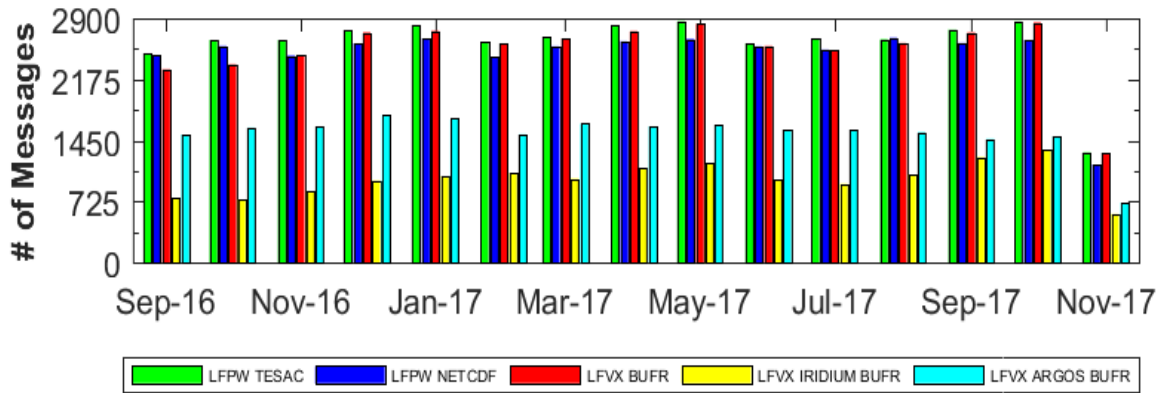
TESAC: 12328 msg  
 BUFR: 13145 msg  
 Iridium BUFR: 7374 msg  
 Argos BUFR: 5729 msg  
 # Netcdf files: 13971 files



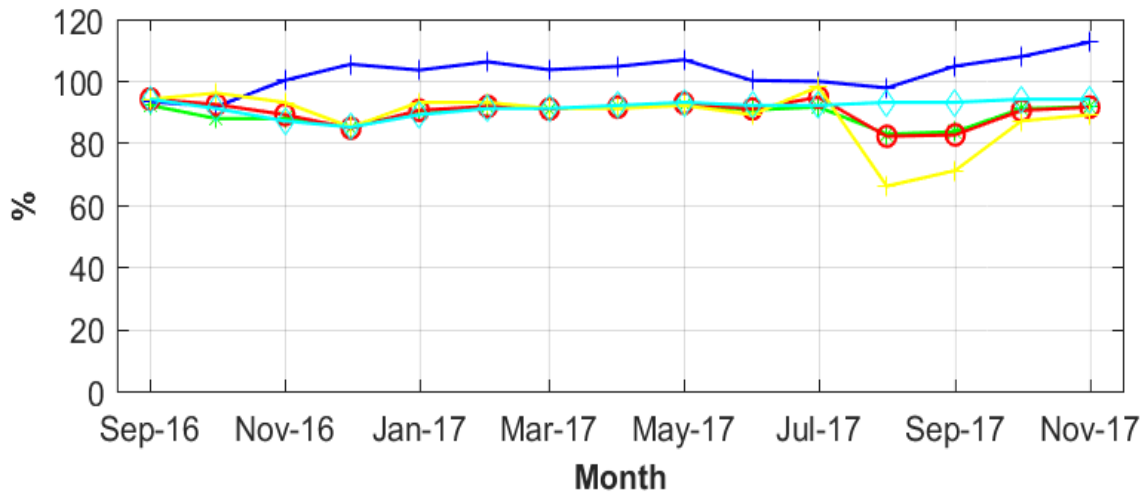
Monthly Average between  
Sep 2016 - Oct 2017:

TESAC on GTS in 24 hr: 93%  
 BUFR on GTS in 24 hr: 91%  
 Iridium BUFR on GTS in 24 hr: 91%  
 Argos BUFR on GTS in 24 hr: 91%  
 BUFR/NetCDF files at GDAC: 94%

# France- Coriolis DAC

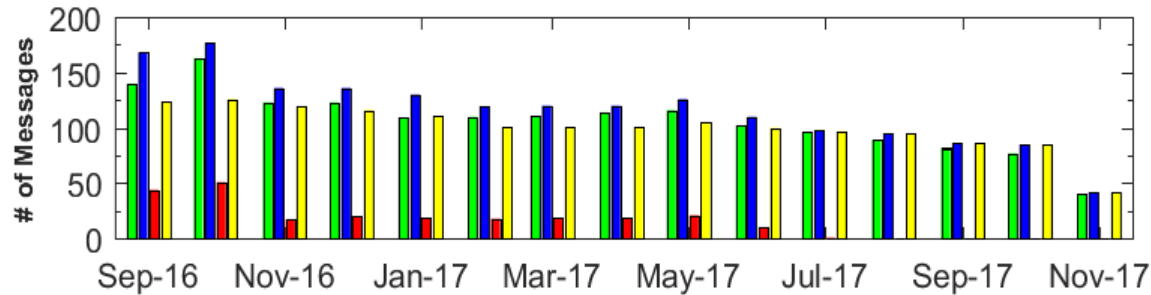


On Average:  
 TESAC: 2707 msg/month  
 BUFR: 2622 msg/month  
 Iridium BUFR: 1022 msg/month  
 Argos BUFR: 1594 msg/month

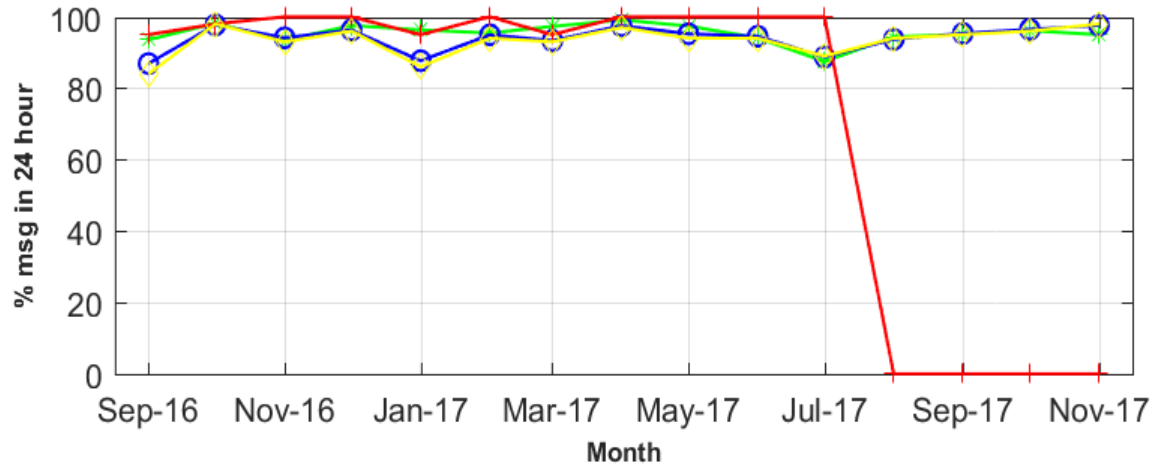


TESAC: 89 %  
 BUFR: 90 %  
 Iridium BUFR: 89 %  
 Argos BUFR: 91 %

# France –CLS DAC

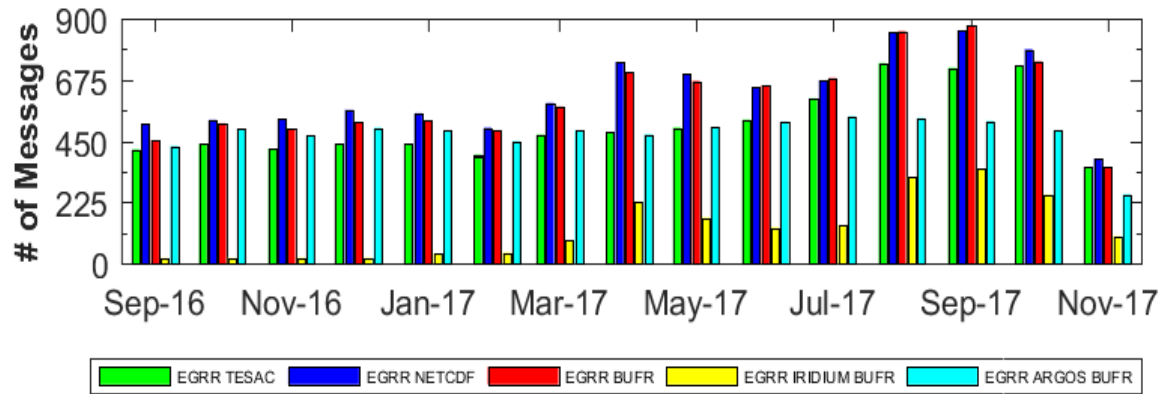


On Average:  
 TESAC: 111 msg/month  
 BUFR: 121 msg/month  
 Iridium BUFR: 17 msg/month  
 Argos BUFR: 104 msg/month

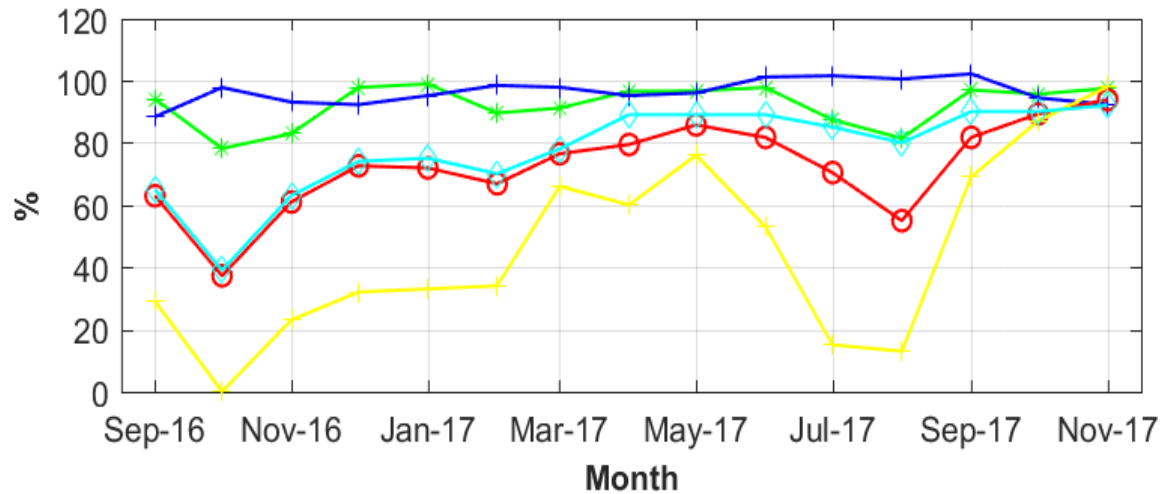


TESAC: 96 %  
 BUFR: 94 %  
 Iridium BUFR: 77 %  
 Argos BUFR: 93 %

# UK – BODC DAC

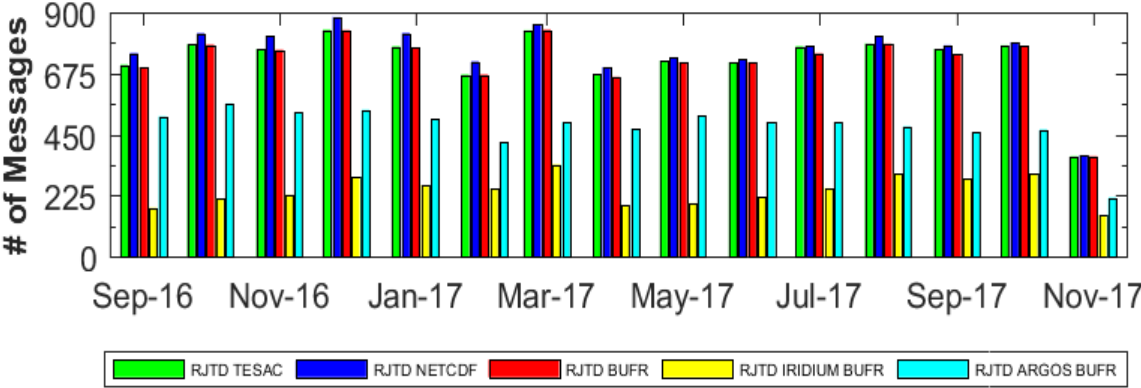


On Average:  
 TESAC: 525 msg/month  
 BUFR: 625 msg/month  
 Iridium BUFR: 132 msg/month  
 Argos BUFR: 494 msg/month

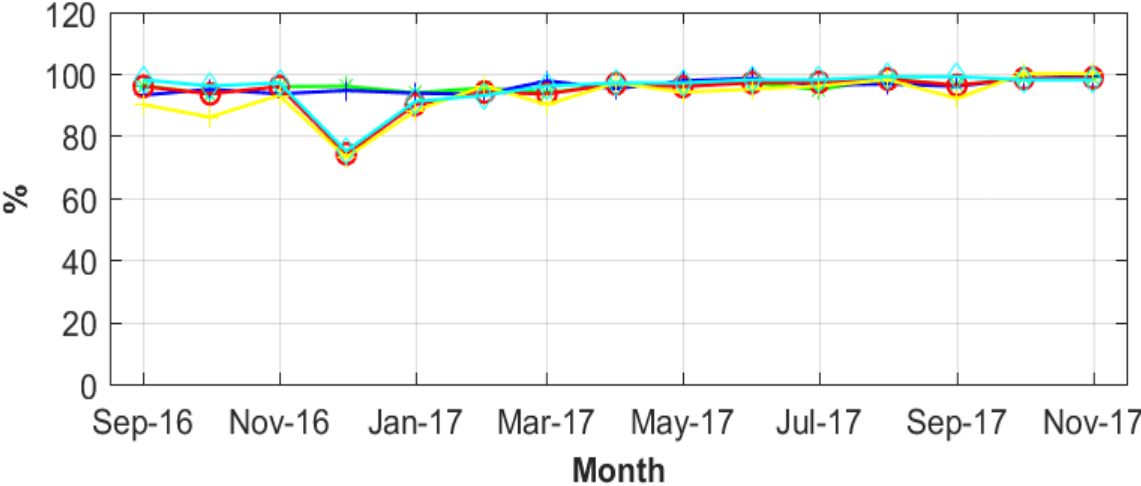


TESAC: 92 %  
 BUFR: 71 %  
 Iridium BUFR: 42%  
 Argos BUFR: 76 %

# Japan – JMA DAC



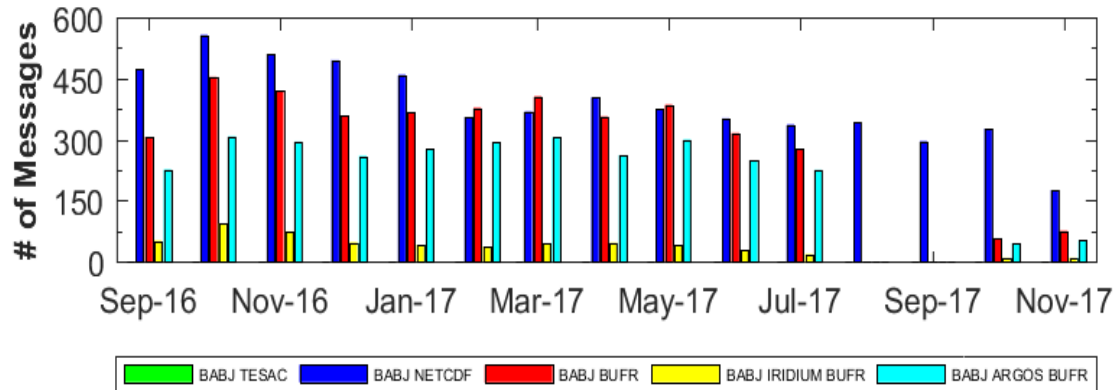
On Average:  
 TESAC: 756 msg/month  
 BUFR: 750 msg/month  
 Iridium BUFR: 253 msg/month  
 Argos BUFR: 498 msg/month



TESAC: 96 %  
 BUFR: 94%  
 Iridium BUFR: 92%  
 Argos BUFR: 95 %



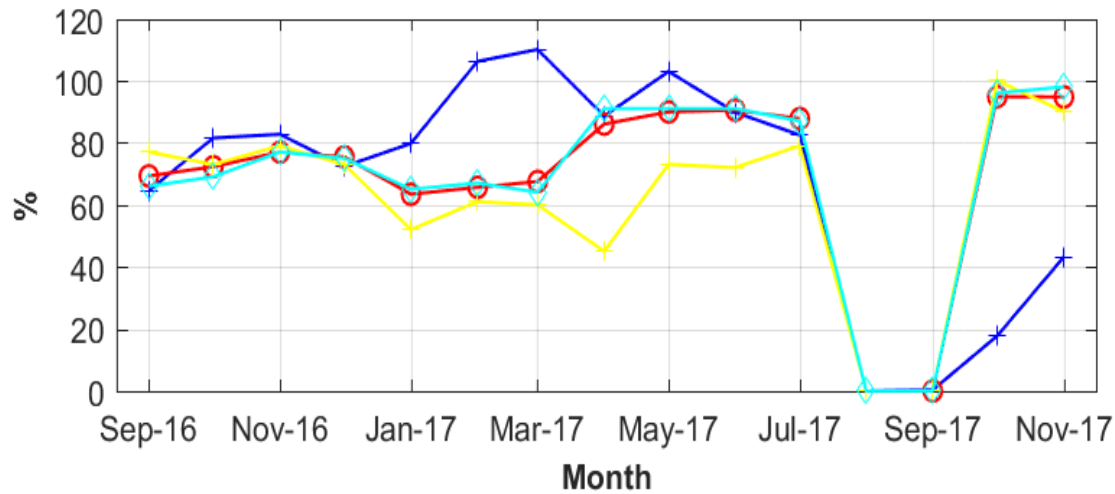
# China – CSIO DAC



On Average:

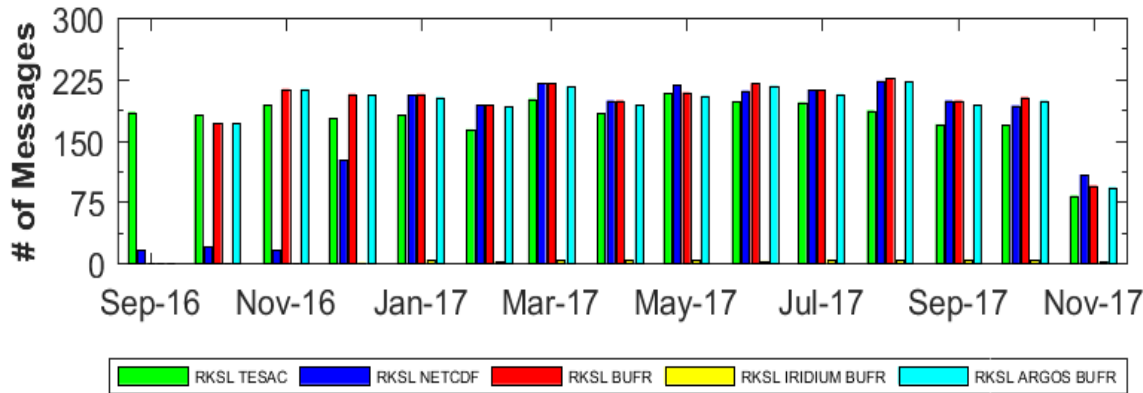
TESAC: 0 msg/month  
 BUFR: 292 msg/month  
 Iridium BUFR: 39 msg/month  
 Argos BUFR: 218 msg/month

No TESAC message

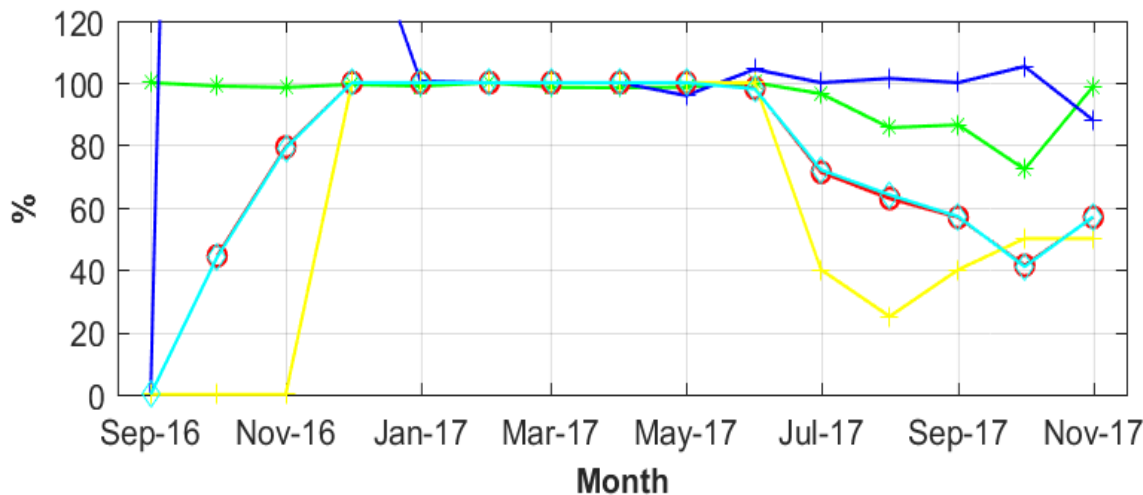


TESAC: 0 %  
 BUFR: 72 %  
 Iridium BUFR: 60 %  
 Argos BUFR: 67 %

# Korea – KMA DAC

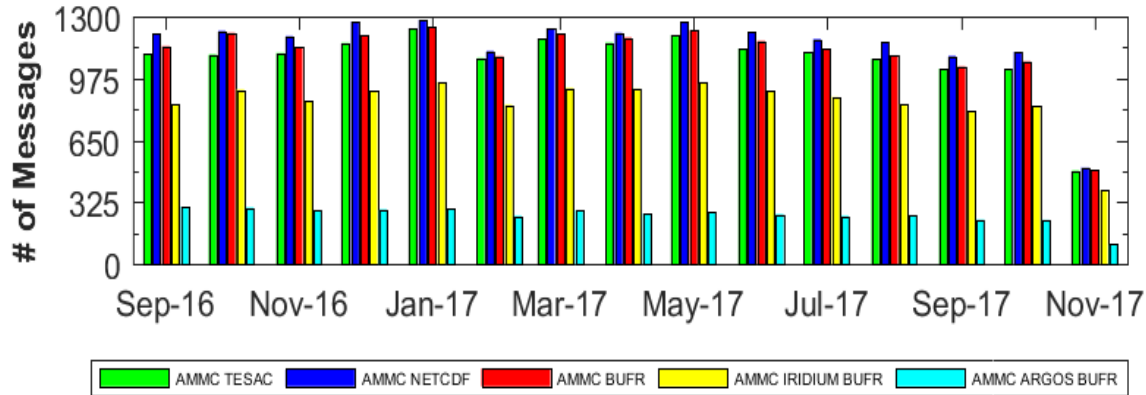


On Average:  
 TESAC: 186 msg/month  
 BUFR: 191 msg/month  
 Iridium BUFR: 3 msg/month  
 Argos BUFR: 189 msg/month



TESAC: 95 %  
 BUFR: 81 %  
 Iridium BUFR: 61 %  
 Argos BUFR: 75 %

# Australia – CSIRO DAC



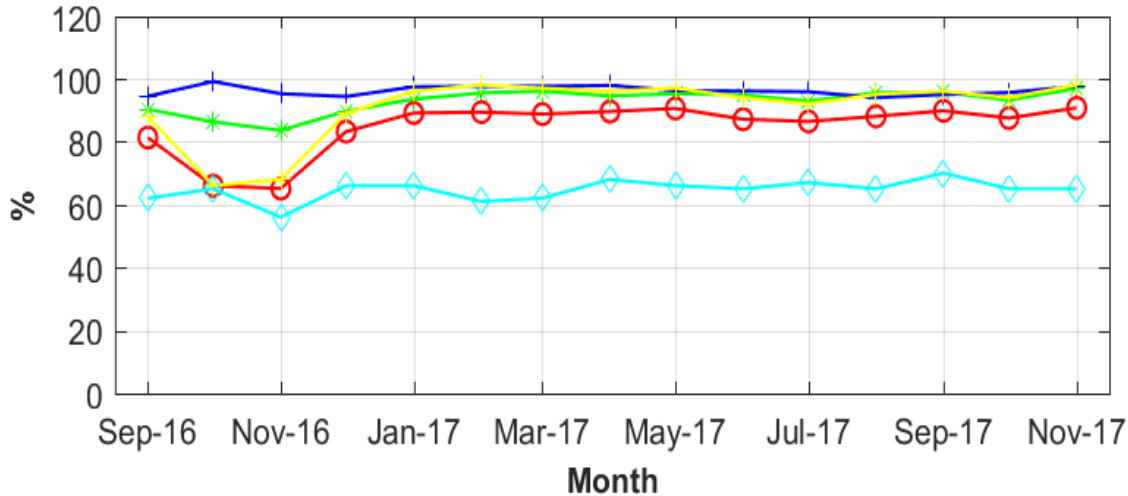
On Average:

TESAC: 1122 msg/month

BUFR: 1154 msg/month

Iridium BUFR: 884 msg/month

Argos BUFR: 270 msg/month



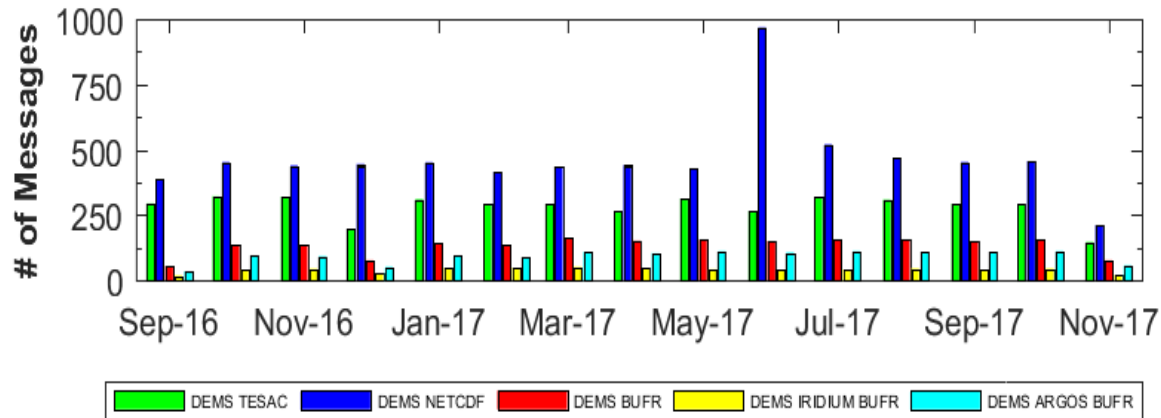
TESAC: 83%

BUFR: 85 %

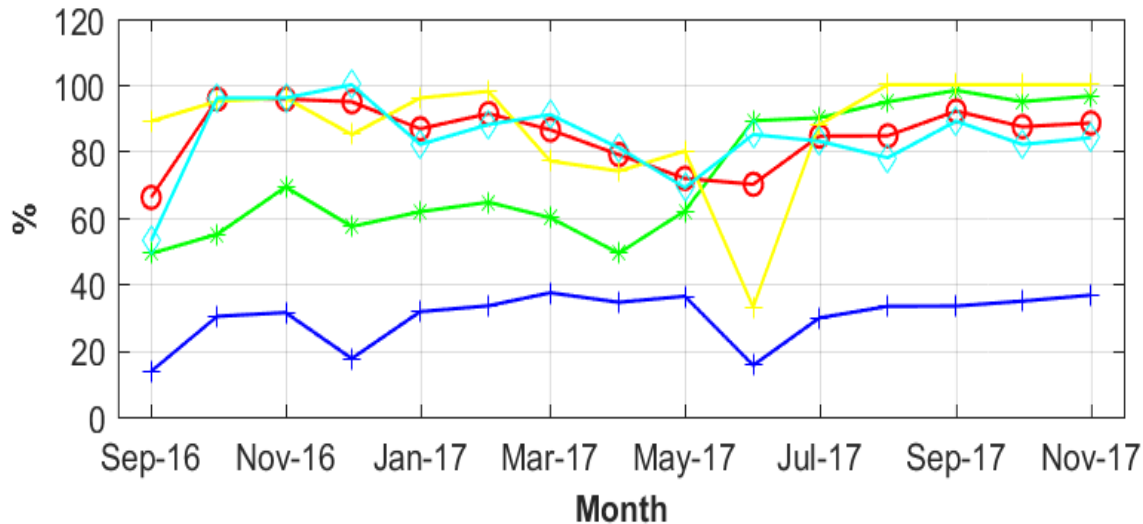
Iridium BUFR: 91%

Argos BUFR: 65 %

# India – INCOIS DAC

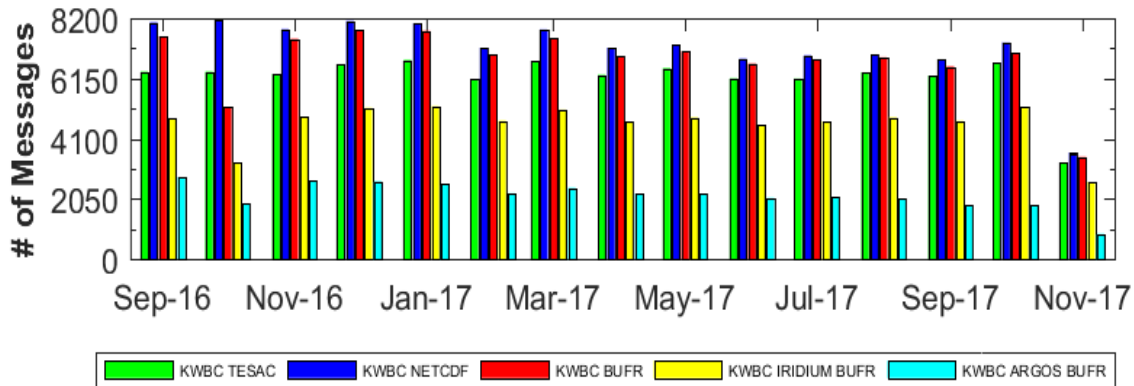


On Average:  
 TESAC: 292 msg/month  
 BUFR: 137 msg/month  
 Iridium BUFR: 42 msg/month  
 Argos BUFR: 95 msg/month

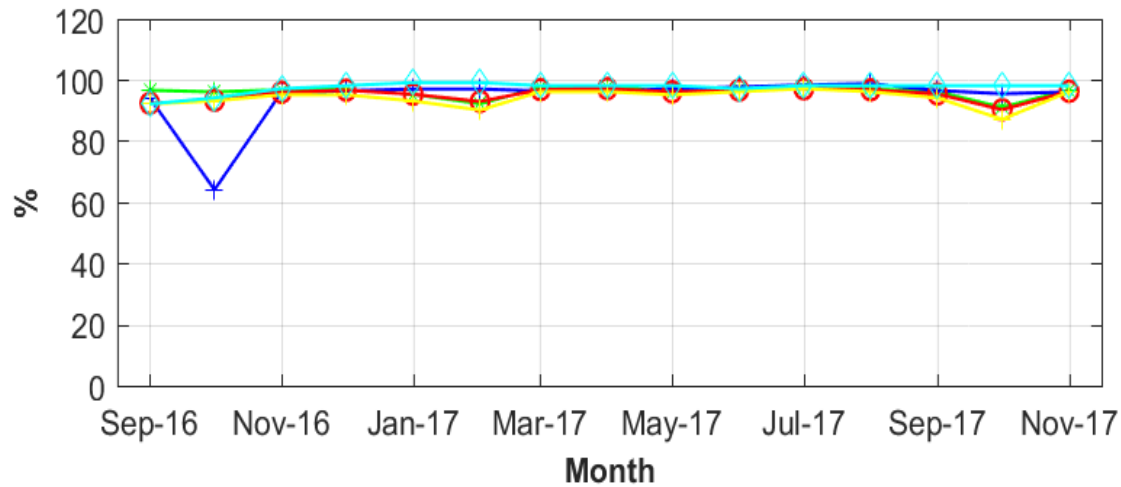


TESAC: 71 %  
 BUFR: 85 %  
 Iridium BUFR: 87 %  
 Argos BUFR: 84 %

# USA-AOML DAC

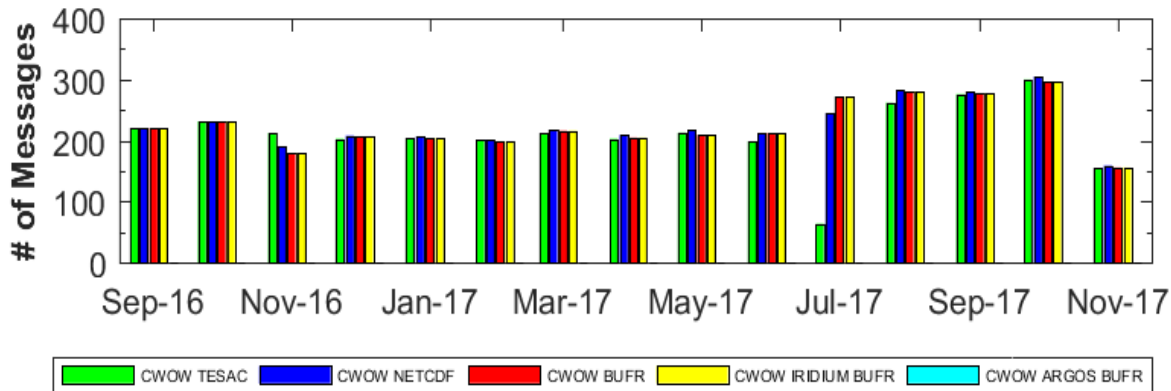


On Average:  
 TESAC: 6415 msg/month  
 BUFR: 7018 msg/month  
 Iridium BUFR: 4753 msg/month  
 Argos BUFR: 2265 msg/month



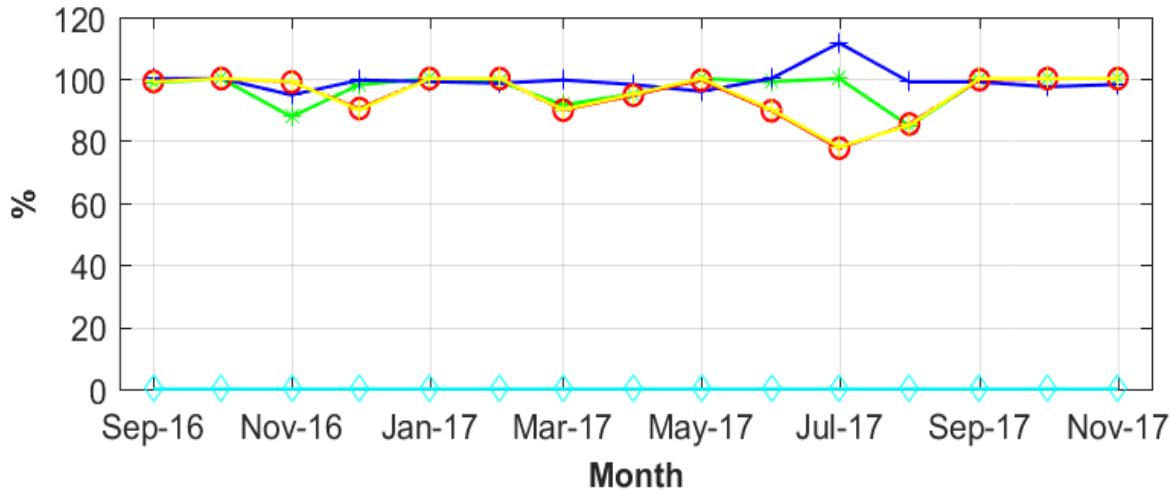
TESAC: 96 %  
 BUFR: 95 %  
 Iridium BUFR: 94 %  
 Argos BUFR: 97 %

# Canada – MEDS DAC



On Average:

TESAC: 214 msg/month  
 BUFR: 229 msg/month  
 Iridium BUFR: 229 msg/month  
 Argos BUFR: 0 msg/month



TESAC: 97 %  
 BUFR: 95 %  
 Iridium BUFR: 95 %  
 Argos BUFR: 0 %

# Conclusions

- On average, 12328 TESAC and 13145 BUFR messages were transmitted monthly on the GTS between Sep 2016 - Oct 2017
- On average, 94% of netCDF profile files were transmitted on the GTS in BUFR format
- The number of GTS BUFR messages transmitted by INCOIS was significantly lower than their number of TESAC messages
- CSIO did not transmit any TESAC messages on the GTS

# Next step

- Could we stop transmit TESAC on the GTS?
- Proposed date for all DAC to stop transmit TESAC on the GTS is **September 1, 2018**.
- However, the proposed official date for letting Argo users know that we will stop transmit TESAC is **July 1, 2018**