



Working together to eliminate old NOTAM





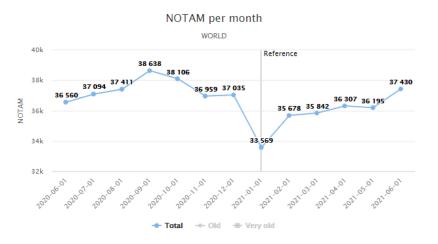


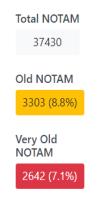
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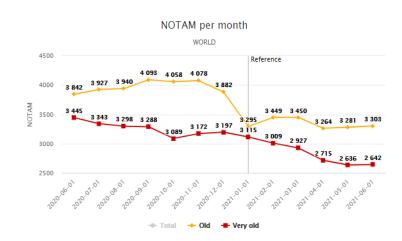
Dr. Alexander Pufahl, ICAO HQ



Global NOTAM trends (since 1 Jan 2021)







Total NOTAM: +3861 (11.5%)

Total old NOTAM: -465 (7.3%)

Old NOTAM: +8 (0.7%)

Very old NOTAM: -473 (15.2%)

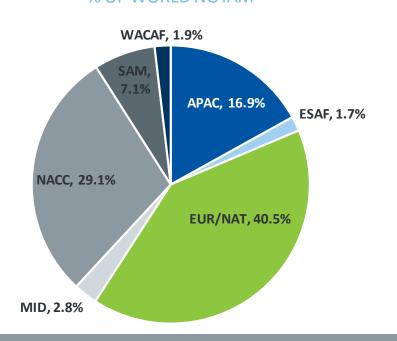




Global NOTAM trends (as of 1 Jun 2021)



ICAO



APAC – Asia Pacific region, Bangkok, Thailand

ESAF – Eastern and Southern African region,

Nairobi, Kenya

EUR/NAT – European and North Atlantic region,

Paris, France

MID – Middle East region, Cairo, Egypt

NACC - North American, Central American and

Caribbean region, Mexico City, Mexico

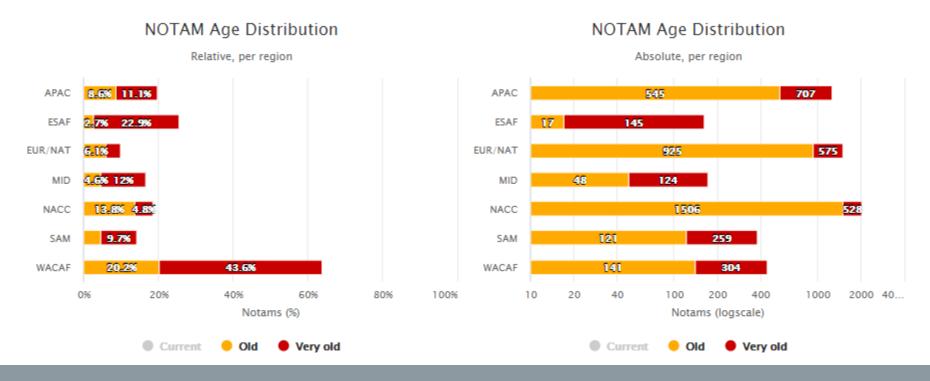
SAM – South American region, Lima, Peru

WACAF – Western and Central African region,

Dakar, Senegal



Global NOTAM trends (as of 1 Jun 2021)







Global NOTAM trends (since 1 Jan 2021)

			Old NOTA	M		Very old NC		
	Total # NOTAM	#	# decrease / increase	% decrease / increase	#	# decrease / increase	% decrease / increase	Cumulative
WORLD	37430	3303	+8	+0.7%	2642	-473	-15.2%	-465
APAC	6344	545	+52	+10.5%	707	+23	+3.4%	+75
ESAF	634	17	-67	-80.0%	145	+6	+4.3%	-61
EUR/NAT	15158	925	+168	+22.2%	575	-453	-44.1%	-285
MID	1034	48	-19	-28.4%	124	-13	-9.5%	-32
NACC	10887	1506	+48	+3.3%	528	-23	-4.2%	+25
SAM	2675	121	-86	-41.5%	259	-69	-21.0%	-155
WACAF	698	141	-88	-38.4%	304	+56	+22.6%	-32



Global NOTAM initiatives



IFAIMA Global AIM virtual event

25-26 May 2021

Session 5: NOTAM and Q&A

Presentations by Capt. Lauri Soini, IFALPA Erdenebaatar Davaasuren, CAA Mongolia Alexander Pufahl, ICAO HQ

Global audience of 600+ AIM professionals





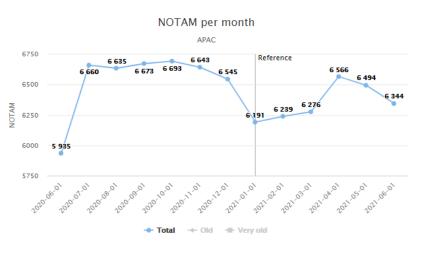
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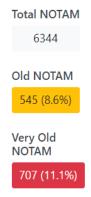
Mr. Shane Sumner, APAC Regional Office

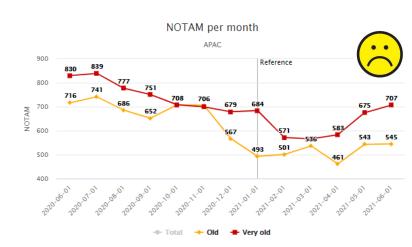




Regional NOTAM trends - APAC







+153 (2.5%) increase in NOTAM

ICAO

16.9% of World (15158 of 37430)

Old NOTAM: +52 (10.5%) **16.5%** of World (545 of 3303) Very old NOTAM: +23 (3.4%) **26.8%** of World (707 of 2642)

NOTAM2021





NOTAM-promulgating Administrations

87.6% of APAC NOTAM

86.9% of APAC old + very old NOTAM

No	Administrations	Total NOTAM	OId NOTAM	Very Old NOTAM	Percent of old and very old NOTAM
1	China	1127	153	29	16.1%
2	India	1127	175	297	41.9%
3	Japan	1113	31	2	3.0%
4	Republic of Korea	596	1	0	0.2%
5	Australia	530	68	2	13.2%
6	Singapore	447	0	0	0.0%
7	Philippines	440	75	58	30.2%
8	Malaysia	296	2	1	1.0%
9	Indonesia	196	1	91	46.9%
10	Papua New Guinea	132	28	3	23.5%
		6004	534	483	16.9%

(as of 25th May 2021)



Best Performing Administrations

- ✓ Singapore
- ✓ Vanuatu
- ✓ Mongolia
- ✓ Cambodia
- ✓ Tonga

have **ZERO old** and **very old** NOTAM



No	Administrations	Total NOTAM	Old NOTAM	Very Old NOTAM	Percent of old and very old NOTAM
1	Singapore	447	0	0	0.0%
2	Vanuatu	20	0	0	0.0%
3	Mongolia	11	0	0	0.0%
4	Cambodia	7	0	0	0.0%
5	Tonga	4	0	0	0.0%
6	Republic of Korea	596	1	0	0.2%
7	Afghanistan	95	1	0	1.1%
8	Bangladesh	32	0	1	3.1%
9	Hong Kong China	26	0	2	7.7%
10	Malaysia	296	2	1	1.0%
		1534	4	4	0.5%

(as of 25th May 2021)



Administrations in need of improvement

69.5% of APAC NOTAM

92.6% of APAC old and very old NOTAM



No	Administrations	Total NOTAM	Old NOTAM	Very Old NOTAM	Percent of old and very old NOTAM
1	India	1127	175	297	41.9%
2	China	1127	153	29	16.1%
3	Philippines	440	75	58	30.2%
4	Indonesia	196	1	91	46.9%
5	Australia	530	68	2	13.2%
6	Lao PDR	41	13	21	82.9%
7	Japan	1113	31	2	3.0%
8	Papua New Guinea	132	28	3	23.5%
9	Nauru	25	3	18	84.0%
10	Maldives	28	13	3	57.1%
		4759	560	524	22.8%

(as of 25th May 2021)



NOTAM2021



G0122/92 NOTAMN

- Q) /QFACS/IV/NBO/A /000/999/
- A) B) 9212170930 C) PERM
- E) NAVAL AERODROME AT LOCATION NXXXX EXXXX ELEVATION 87M RWY 06L/24R BEARING 063/243 LENGTH 3365M SURFACE CONCRETE/ASPHALT. LCN80. FLWG CCT AREA FOR OPN DURING DAY AND NIGHT ESTABLISHED. CCT AREA A ALT 2000FT



29 Years!

G0503/21 NOTAMR G0424/21

Q) /QKKKK/K/K/K/000/999/

A) B) 2105010028 C) 2105312359 EST

E) CHECKLIST:

YEAR=1992 0122

YEAR=1999 0136

YEAR=2001 0047

YEAR=2007 0013

YEAR=2008 0094 0185

YEAR=2011 0050 0052 0059 0238 0251

YEAR=2012 0017 0023 0131 0196 0282 0418

YEAR=2013 0018 0020 0021 0330 0351 0417 0455 0483 0535 0538 0547

YEAR=2014 0009 0028 0054 0055 0208 0300 0441

YEAR=2015 0124 0133 0247 0261 0418 0419 0420 0471 0478 0570 0580

YEAR=2016 0185 0210 0218 0292 0339 0346 0389 0391

YEAR=2017 0174 0309 0536 0537 0539 0540 0614 0616

YEAR=2018 0120 1144 1146 1194 1196 1197 1198 1200 1201 1202 1288 1289 1411 1915 1972 1995

YEAR=2019 0158 0175 0177 0179 0181 0183 0185 0187 0232 0477 0478 0479 0505 0611 0647 0648 0649 0650 0651 0652 0653 0654 0829 0986 0992 1350 1438

YEAR=2020 0044 0141 0144 0171 0334 0402 0823 0875 0927 0981 0982 0983 0984 1196 1197 1213 1214 1215 1285 1286 1297 1298 1316 1317 1358 1369 1370 1371 1372 1373 1374 1377 1378 1379 1380 1381 1383 1384 1386 1387 1390 1391 1392 1393 1394 1395 1396

ICAO CAPACITY & EFFICIENCY

NOTAM2021



Regional NOTAM initiatives

Asia/Pacific Regional Discussion of NOTAM Proliferation

Asia/Pacific AIS-AIM Implementation Task Force (AAITF)

AAITF/13 - 2018

AAITF/14 - 2019

AAITF/15 - 2020

AAITF/16 - 2021

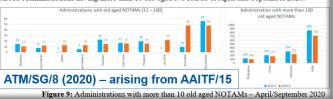


Conclusion ATM/SG/6-14: Management of NOTAMs

That, States are urged to take immediate action to reduce the large numbers of permanent, long duration NOTAMs by:

- 1. conducting a full review of all NOTAMs issued by the State;
- expediting the transfer of valid permanent NOTAM information into AIP;
- expediting the transfer of valid temporary NOTAM information of long duration into AIP SUP; and
- cancelling the NOTAMs accordingly.

7.13 As of 01 September 2020 a total of 6,844 NOTAMs were valid in the APAC Region, and 1469 of them had been published before 01 June 2020. In comparison with the data reported in 2019, by September 2020 the total number of valid NOTAMs in the APAC Region had increased by 17%, while the number of old-aged NOTAMs had decreased by 14.8%. The percentage of valid NOTAMs that were old-aged had decreased by 8%, remaining unacceptably high. Figure 9 illustrated the APAC Administrations having more than 10 old-aged NOTAMS at April and September 2020.



AAITF/16 07 – 11 June 2021

2.11 In addition to its analysis of 'old' NOTAMs, the ICAO Regional Office also plans to conduct analyses, resources permitting, of NOTAMs that are issued in non-compliance with Annex 15 section 6.2.

 ${}^{\circ}\text{Bad}{}^{\circ}\text{ NOTAMs promulgating information that Annex 15 Standards require to be promulgated by AIP Amendment under AIRAC;}$

Unnecessary NOTAMs promulgating information that should not be promulgated in operational information (i.e. administrative or other non-operational matters); and

'Recycled' NOTAMs of three months' duration that are replaced more than once by another identical NOTAM of three months' further duration to 'work around' PANS-AIM 6.1.4 provisions.

Further analysis of bad, unnecessary and recycled NOTAM

Click for more information





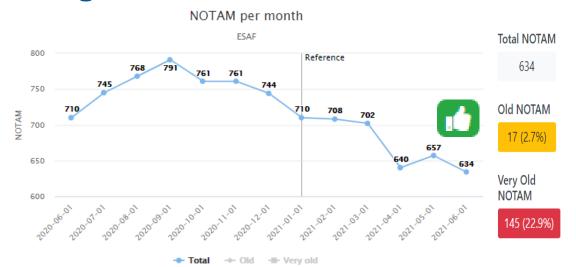


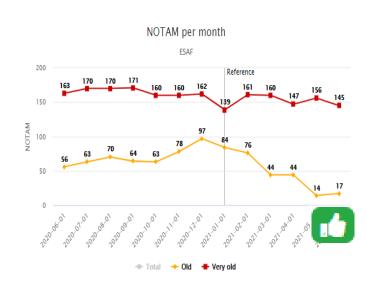


Presented by

Ms. Keziah Ogutu, ESAF Regional Office

Regional NOTAM trends – ESAF





- 76 (10.7%) decrease in NOTAM

1.7% of World (634 of 37430)

Old NOTAM: Very old NOTAM: Old & very old NOTAM:

+6 (4.3%)

-67 (79.8%) **0.5%** of World (17 of 3303) **5.5%** of World (145 of 2642) **2.7%** of World (162 of 5945)

NOTAM2021





NOTAM-promulgating States

89.0% of all ESAF NOTAM

78.4% of all ESAF old and very old NOTAM

No	Administrations	Total NOTAM	Old NOTAM	Very Old NOTAM	% of old and very old NOTAM
1	South Africa	235	5	53	24.7%
2	Madagascar	175	1	27	16.0%
3	Botswana	28	0	0	0%
4	United Rep. of Tanzania	25	0	0	0%
5	Kenya	20	0	2	10.0%
6	Mozambique	19	0	13	68.4%
7	Namibia	19	1	2	15.8%
8	Djibouti	17	0	4	23.5%
9	Malawi	14	0	14	100%
10	Zambia	12	0	5	41.7%
		564	7	120	22.5%

NOTAM2021





Best Performing States

- ✓ Botswana
- ✓ U. Rep of Tanzania
- ✓ Comoros
- ✓ Mauritius
- ✓ Rwanda
- ✓ Somalia
- ✓ Burundi

have **ZERO old** and **very old** NOTAM



No	Administrations	Total NOTAM	Old NOTAM	Very Old NOTAM	% of old and very old NOTAM
1	Botswana	28	0	0	0%
2	United Rep. of Tanzania	25	0	0	0%
3	Mauritius	6	0	0	0%
4	Rwanda	5	0	0	0%
5	Somalia	4	0	0	0%
6	Burundi	0	0	0	0%
7	Comoros	9	2	0	22.2%
8	Kenya	20	0	2	10.0%
9	Namibia	19	1	2	16.0%
10	Lesotho	10	2	3	50.0%
		126	5	7	9.5%

NOTAM2021





States in need of improvement

74.9% of ESAF NOTAM

85.2% of ESAF old and very old NOTAM



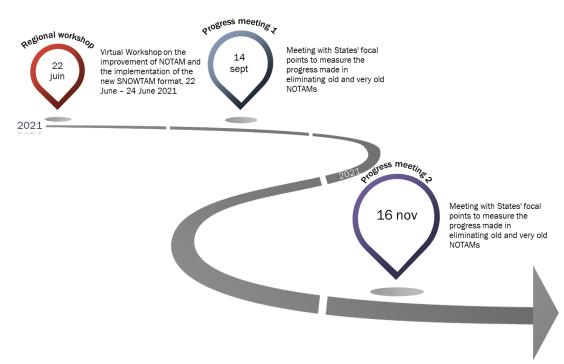
No	Administrations	Total NOTAM	Old NOTAM	Very Old NOTAM	% of old and very old NOTAM
1	South Africa	235	5	53	24.7%
2	Madagascar	175	1	27	16.0%
3	Malawi	14	0	14	100%
4	Mozambique	19	0	13	68.4%
5	Zimbabwe	6	0	6	100%
6	Zambia	12	0	5	41.7%
7	Seychelles	5	1	4	80.0%
8	Angola	4	0	4	100%
9	Eritrea	3	0	3	100%
10	Eswatini	2	0	2	100%
		475	7	131	21.8%





Regional NOTAM initiatives – WACAF and ESAF







ICAO CAPACITY & EFFICIENCY NOTAM2021

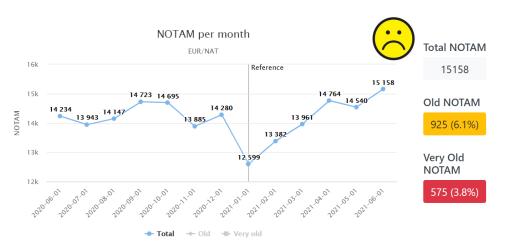
Regional NOTAM Statistics – EUR/NAT

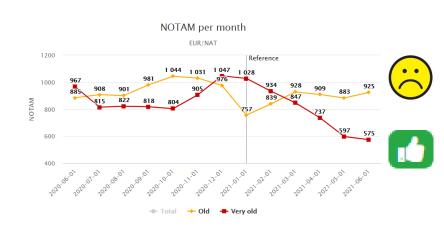
Presented by

Mr. Abbas Niknejad, EUR/NAT Regional Office



Regional NOTAM trends – EUR/NAT





+2559 (20.3%) increase in NOTAM

40.5% of World (15158 of 37430)

Old NOTAM: +168 (22.2%)

28.0% of World (925 of 3303)

Very old NOTAM: -453 (44.1%)

21.8% of World (575 of 2642)

Total old + very old NOTAM:

25.2% of World (1500 of 5945)





NOTAM-promulgating Administrations

EUR/NAT **Top10** = 28.5% of World NOTAM FR+RU+DE+IT+GB = 20.0% of World NOTAM

70.5% of EUR/NAT NOTAM 75.2% of EUR/NAT old + very old NOTAM

No	Administrations	Total NOTAM	Old NOTAM	Very Old NOTAM	% of old and very old NOTAM
1	France	1896	234	132	19.30%
2	Russian Federation	1545	164	48	13.72%
3	Germany	1534	65	61	8.21%
4	Italy	1434	73	34	7.46%
5	United Kingdom	1044	10	0	0.96%
6	Greece	813	14	21	4.31%
7	Spain	767	11	10	2.74%
8	Turkey	680	137	101	35.00%
9	Poland	583	3	0	0.51%
10	Hungary	395	9	1	2.53%
		10691	720	408	10.55%

NOTAM2021



Best Performing Administrations

(States with ZERO old and very old NOTAM)



No	Administrations	Total NOTAM	Old NOTAM	Very Old NOTAM	% of old and very old NOTAM
1	Sweden	245	0	0	0%
2	Switzerland	135	0	0	0%
3	Croatia	111	0	0	0%
4	Bulgaria	63	0	0	0%
5	Latvia	44	0	0	0%
6	Slovakia	35	0	0	0%
7	Iceland	27	0	0	0%
8	Luxembourg	20	0	0	0%
9	Georgia	18	0	0	0%
10	Albania	10	0	0	0%
11	Montenegro	9	0	0	0%
12	Belarus	9	0	0	0%
13	Rep. of Moldova	9	0	0	0%
14	Azerbaijan	4	0	0	0%
15	Tajikistan	2	0	0	0%
		741	0	0	0%





Best Performing Administrations

(States with best progress reducing old and very old NOTAM)



No	Administrations	Progress - Old NOTAM	Progress - Very Old NOTAM	Progress - Total
1	Germany	-76	-199	-275
2	France	-19	-33	-52
3	Finland	15	-48	-33
4	Norway	-5	-18	-23
5	Albania	0	-18	-18
6	Romania	0	-17	-17
7	Belgium	-12	-5	-17
8	Iceland	-1	-14	-15
9	Italy	-10	-2	-12
10	Poland	-2	-8	-10
		- 110	- 362	- 472

NOTAM2021





States with biggest number of old and very old NOTAM

57.8% (8763) of all EUR/NAT NOTAM **84.1% (1262)** of old and very old NOTAM



No	Administrations	Total NOTAM	Old NOTAM	Very Old NOTAM	Total old and very old NOTAM
1	France	1896	234	132	366
2	Turkey	680	137	101	238
3	Russian Federation	1545	164	48	212
4	Germany	1534	65	61	126
5	Italy	1434	73	34	107
6	Belgium	337	46	13	59
7	Uzbekistan	89	22	23	45
8	Cyprus	139	5	38	43
9	Greece	813	14	21	35
10	Norway	296	20	11	31
		8763	780	482	1262





States in need of improvement

(increase in old and very old NOTAM)



No	Administrations	Total NOTAM	Progress Old NOTAM	Progress Very Old NOTAM	Total Progress
1	Turkey	680	110	-8	1 102
2	Russian Federation	1545	102	-21	† 81
3	Uzbekistan	89	11	5	1 6
4	Denmark	224	12	-1	1 1
5	Algeria	143	9	-1	1 8
6	Greece	813	11	-3	1 8
7	Spain	767	5	0	† 5
8	Tunisia	127	5	0	† 5
9	Kazakhstan	124	6	-1	† 5
10	Turkmenistan	37	4	0	1 4







Regional NOTAM initiatives – EUR/NAT

States' feedback to EUR/NAT State Letter:

- Commitment to NOTAM2021 campaign objectives; global campaign triggered new monitoring activities, cleaning efforts and corrective actions by EUR States on NOTAM;
- NOTAM proliferation; NOTAM with political nature remain for long time (AIS has no authority to resolve this issue); increase in the number of obstacle NOTAM;
- Long unserviceability of some CNS/ATM systems necessitate continuing NOTAM;
- AIS/NOF staff continue qualification/training initiatives;
- Coordination between AIS and originators to strictly adhere to Annex 15 NOTAM provisions; not to issue NOTAM for more than 3 months; and to systematically monitor NOTAM dates;
- NOTAM procedure/guidance material to monitor NOTAM on continuous basis (part of QMS);
- Include NOTAM in CAA inspectors oversight functions of AIS/NOF units;
- Some NOTAM systems (e.g. EAD) automatically warn & report NOTAM exceeding 3 months;
- Ongoing work in some States to send automatic warning email to originators when NOTAM exceed 3 months or approaching EST date;



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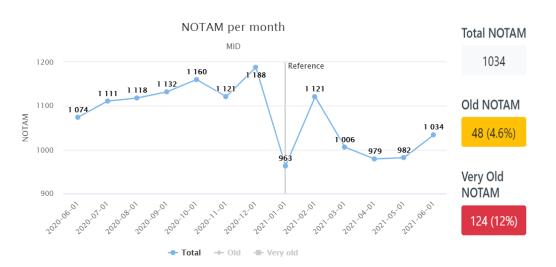
Regional NOTAM Statistics - MID

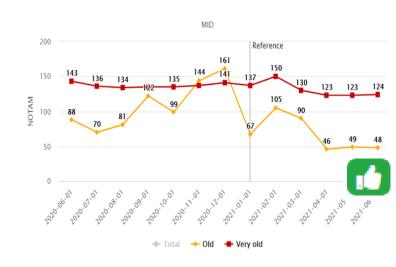
Presented by

Mr. Radhouan Assaoui, MID Regional Office



Regional NOTAM trends - MID





+71 (7.3%) increase in NOTAM

2.8% of World (1034 of 37430)

Old NOTAM: -19 (28.3%) **1.5%** of World (48 of 3303) Very old NOTAM: -13 (10.0%) **4.7%** of World (124 of 2642)





NOTAM-promulgating Administrations

96.2% of all MID NOTAM

90.6% of all MID old and very old NOTAM

No	Administrations	Total NOTAM	Old NOTAM	Very Old NOTAM	% of old and very old NOTAM
1	Islamic Rep. of Iran	370	33	59	24.8
2	Saudi Arabia	125	2	2	3.2
3	Qatar	102	0	0	0
4	UAE	93	0	0	0
5	Kuwait	77	3	9	15.6
6	Bahrain	65	4	3	10.8
7	Egypt	56	2	0	3.6
8	Syrian Arab Rep.	41	0	17	41.5
9	Jordan	28	2	1	10.7
10	Libya	19	0	19	100
10	Oman	19	0	0	0
		995	46	110	15.7 %





Best Performing Administrations

- ✓ Qatar
- ✓ UAE
- ✓ Oman
- ✓ Iraq
- ✓ Lebanon
- ✓ Sudan

have **ZERO old** and **very old** NOTAM



No	Administrations	Total NOTAM	Old NOTAM	Very Old NOTAM	% of old and very old NOTAM
1	Qatar	102	0	0	0%
2	UAE	93	0	0	0%
3	Oman	19	0	0	0%
4	Iraq	18	0	0	0%
5	Lebanon	3	0	0	0%
6	Sudan	2	0	0	0%
7	Saudi Arabia	125	2	2	3.2%
8	Egypt	56	2	0	3.6%
9	Jordan	28	2	1	10.7%
10	Bahrain	65	4	3	10.8%
		511	10	6	3.1%





States in need of improvement

50.5% of MID NOTAM90.7% of MID old and very old NOTAM



No	Administrations	Total NOTAM	Old NOTAM	Very Old NOTAM	% of old and very old NOTAM
1	Islamic Rep. of Iran	370	33	59	24.8%
2	Libya	19	0	19	100%
3	Syrian Arab Rep.	41	0	17	41.5%
4	Yemen	16	2	14	100%
5	Kuwait	77	3	9	15.6%
		523	38	118	29.8%



Regional NOTAM initiatives – MID



- Regional initiatives involve a series of activities to assist implementation support, coordination, monitoring and reporting activities, and include:
 - ✓ MID AIM Forum planned a series of events during 2021.
 - ✓ AIM/QMS Functions Systems and Processes Webinar, 28 April 2021.
 - ✓ ICAO MID Webinar on NOTAM Improvement, 01 June 2021.
 - ✓ Followed by a series of similar events on 16 Aug and 18 Oct 2021.
 - The purpose of those webinars is to monitor progress and share experiences and lessons learned.
- MID AIM Forum has defined 2 new KPIs to enable States to measure, monitor and reduce old and very old NOTAM.
- The Aeronautical Information "go-team" will hold AIM Technical Panels on a one-to-one basis, with concerned State.



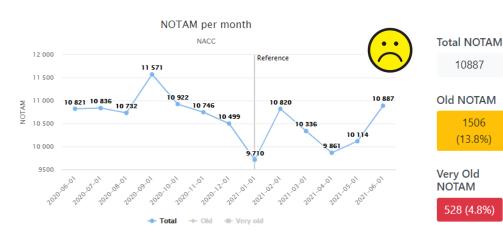


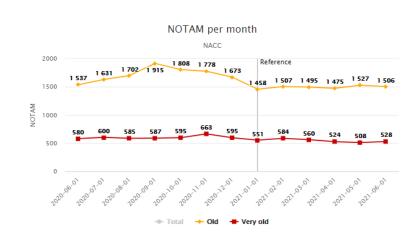
Presented by

Mr. Raul Martinez, NACC Regional Office



Regional NOTAM trends – NACC





+1177 (12.1%) increase in NOTAM

29.1% of World (10887 of 37430)

Old NOTAM:

+48 (3.3%) **45.6%** of World (1506 of 3303)

Very old NOTAM: -23 (4.2%) **20.0%** of World (528 of 2642)

NOTAM2021



NOTAM-promulgating States

However, the **Top 3** States alone make up...

97.5% of NACC NOTAM

98.5% of NACC old + very old NOTAM

No	Administrations	Total NOTAM	Old NOTAM	Very Old NOTAM	Percent of old and very old NOTAM
1	United States of America	9508	1352	446	18.9%
2	Canada	897	83	30	12.6%
3	Mexico	211	45	48	44.1%
4	Cuba	75	12	0	16.0%
5	Bahamas	37	8	2	27.0%
6	Honduras	26	2	0	7.7%
7	Costa Rica	22	0	0	0%
8	Guatemala	14	0	1	7.1%
9	9 Dominican Republic		0	0	0%
10	Trinidad and Tobago	11	0	0	0%
		10812	1502	527	18.8%



NOTAM2021





Best Performing States



No	Administrations	Total NOTAM	Old NOTAM	Very Old NOTAM	Percent of old and very old NOTAM
1	Costa Rica	22	0	0	0%
2	Dominican Republic	11	0	0	0%
3	3 Trinidad and Tobago		0	0	0%
4 Saint Kitts and Nevis		10	0	0	0%
5	Saint Vincent and the Grenadines	10	0	0	0%
6	El Salvador	8	0	0	0%
7	Haiti	6	0	0	0%
8	Nicaragua	6	0	0	0%
9	Antigua and Barbuda	5	0	0	0%
10	Grenada	3	0	0	0%
11	Barbados	2	0	0	0%
12	Belize	0	0	0	0%







States in need of improvement

98.5% of NACC NOTAM 99.6% of NACC old and very old NOTAM



No	Administrations	Total NOTAM	Old NOTAM	Very Old NOTAM	% of old and very old NOTAM
1	United States of America	9508	1352	446	18.9%
2	Mexico	211	45	48	44.1%
3	Canada	897	83	30	12.6%
4	Bahamas	37	8	2	27.0%
5	Cuba	75	12	0	16.0%
		10728	1500	526	18.9%

NOTAM**2021**



Regional NOTAM initiatives - NACC

4th Meeting of the AIM Task Force (AIM TF/04) 11 May 2021

Agenda Item 5: NOTAM Contingency Plans for NAM/CAR Regions and Tasks Related with the NOTAM Global Campaign.

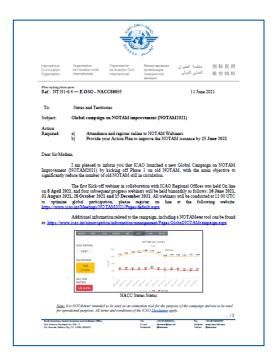
 Removal of permanent NOTAM as indicated by ICAO Doc 8126 -Aeronautical Information Services Manual







Regional NOTAM initiatives – NACC



- State letter in support of NOTAM2021 campaign issued on 11 June 2021:
- States are urged to review the NOTAMeter or national NOTAM system, identify old and very old NOTAM, and to take corrective actions.
- Request for NACC States to provide Action Plan for improving NOTAM issuance by 25 June 2021







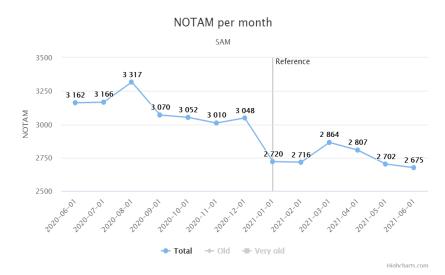
Regional NOTAM Statistics - SAM

Presented by

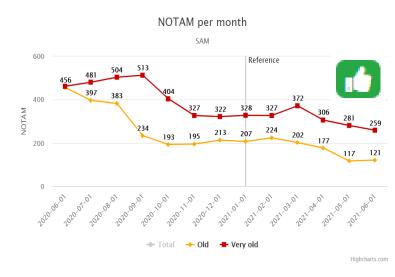
Mr. Jorge Armoa, SAM Regional Office



Regional NOTAM trends - SAM



Total NOTAM 2675 **Old NOTAM** 121 (4.5%) Very Old NOTAM 259 (9.7%)



-45 (1.7%) decrease in NOTAM

7.1% of World (698 of 37430)

Old NOTAM: -86 (4.5%) **8.8%** of World (121 of 3303) Very old NOTAM: -69 (10.0%) 7.1% of World (259 of 2642)

NOTAM2021





NOTAM-promulgating Administrations

99,1% of all SAM NOTAM100% of all SAM old and very old NOTAM

No	Administrations	Total NOTAM	Old NOTAM	Very Old NOTAM	% of old and very old NOTAM
1	Argentina	1007	6	114	11.9%
2	Chile	583	3	0	0.5%
3	Brazil	445	54	36	20.2%
4	Colombia	217	22	47	31.8%
5	Peru	128	4	28	25.0%
6	Bolivia	81	5	19	29.6%
7	Uruguay	72	1	3	5.6%
8	Venezuela	63	23	3	41.3%
9	Panamá	28	3	4	25.0%
10	Ecuador	27	0	5	18.5%
		2651	121	259	100%

ICAO CAPACITY & EFFICIENCY

NOTAM2021





Best Performing Administrations

- ✓ Guyana
- ✓ Suriname
- ✓ Paraguay

have **ZERO old** and **very old** NOTAM



No	Administrations	Total NOTAM	Old NOTAM	Very Old NOTAM	% of old and very old NOTAM
1	Guyana	5	0	0	0%
2	Suriname	8	0	0	0%
3	Paraguay	11	0	0	0%
4	Chile	583	3	0	0.5%
5	Uruguay	72	1	3	5.6%
6	Venezuela	63	23	3	41.3%
7	Panamá	28	3	4	25.0%
8	Ecuador	27	0	5	18.5%
9	Bolivia	81	5	19	29.6%
10	Perú	128	4	28	25.0%
		1006	39	62	89.5%





States in need of improvement

70.8% of SAM NOTAM

88.2% of SAM old and very old NOTAM

No	Administrations	Total NOTAM	Old NOTAM	Very Old NOTAM	% of old and very old NOTAM
1	Argentina	1007	6	114	11.9%
2	Colombia	217	22	47	31.8%
3	Brazil	445	54	36	20.2%
4	Perú	128	4	28	25.0%
5	Bolivia	81	5	19	29.6%
		1878	91	244	88.2%







Regional NOTAM initiatives - SAM



Regional initiatives involve a series of activities to assist implementation support, coordination, monitoring and reporting activities, including:

- ✓ SAM AIM Forum planned several NOTAM events during 2021.
- ✓ Virtual meetings planned with the AIS/AIM community of the SAM region in support of NOTAM2021 campaign. The first meeting was held before the global kick-off event, and the second late May.
- ✓ Five virtual missions planned to verify AIS/AIM services in SAM region, including NOTAM-related topics. First virtual mission with Bolivia.
- ✓ SAM/AIM/14 will be held in September. NOTAM2021 campaign to be included in the meeting agenda.
- ✓ SAM Office will monitor trend of old NOTAM as one of its key performance indicators.



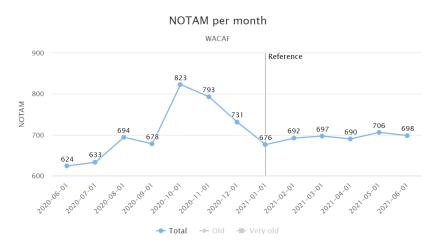


Presented by

Mr. Fanfe Bamba, WACAF Regional Office



Regional NOTAM trends - WACAF

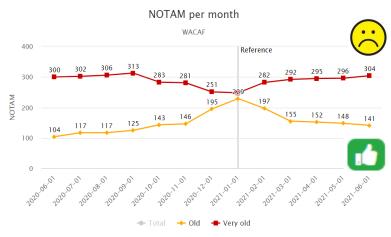


141 (20.2%) Very Old NOTAM 304 (43.6%)

Total NOTAM

Old NOTAM

698



+22 (3.5%) increase in NOTAM

1.9% of World (698 of 37430)

Old NOTAM:

-88 (-38.4%)

4.3% of World (141 of 3303)

Very old NOTAM: +56 (22.6%)

11.5% of World (304 of 2642)

Old & very old NOTAM: -32 (-6.7%)

7.5% of World (445 of 5945)

NOTAM2021





NOTAM-promulgating Administrations

75.1% of all WACAF NOTAM

82.7% of all WACAF old and very old NOTAM

No	Administrations	Total NOTAM	Old NOTAM	Very Old NOTAM	% of old and very old NOTAM
1	Congo	79	33	45	98.7%
2	Cameroon	72	19	50	95.8%
3	Gabon	71	28	34	87.3%
4	Niger	70	11	10	30.0%
5	Mali	43	2	11	30.3%
6	Central African Republic	41	15	26	100%
7	Chad	40	16	20	90.0%
8	Cote d'Ivoire	40	5	20	62.5%
9	Democratic Republic of the Congo	35	2	0	5.7%
10	Benin	33	3	18	63.6%
		524	134	234	70%

NOTAM2021





Best Performing Administrations

- ✓ Nigeria
- √ Cabo Verde
- ✓ Ghana
- ✓ Liberia
- ✓ Sierra Leone
- ✓ Guinea

have **ZERO old** and **very old** NOTAM



No	Administrations	Total NOTAM	Old NOTAM	Very Old NOTAM	% of old and very old NOTAM
1	Nigeria	20	0	0	0%
2	Cabo Verde	8	0	0	0%
3	Ghana	3	0	0	0%
4	Liberia	3	0	0	0%
5	Sierra Leone	2	0	0	0%
6	Guinea	1	0	0	0%
7	Guinea-Bissau	3	1	0	33.3%
8	Democratic Republic of the Congo	33	2	0	5.7%
9	Burkina Faso	21	0	5	23.8%
10	Mauritania	18	0	7	38.9%
		112	3	12	13.4%

NOTAM2021





States in need of improvement

77.4% of WACAF NOTAM

91.7% of WACAF old and very old NOTAM



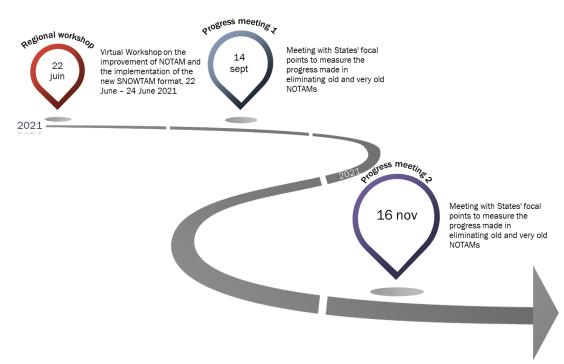
	No	Administrations	Total NOTAM	Old NOTAM	Very Old NOTAM	% of old and very old NOTAM
	1	Congo	79	33	45	98.8%
	2	Cameroon	72	19	50	95.8%
	3	Gabon	71	28	34	87.3%
	4	Central African Republic	41	15	26	100%
	5	Chad	40	16	20	90.0%
	6	Cote d'Ivoire	40	5	20	62.5%
	7	Togo	28	3	19	78.6%
	8	Niger	70	11	10	30.0%
	9	Benin	33	3	18	63.6%
	10	Equatorial Guinea	23	2	18	87.0%
			540	137	271	75.6%





Regional NOTAM initiatives – WACAF and ESAF









Presented by

Erdenebaatar Davaasuren, CAA Mongolia

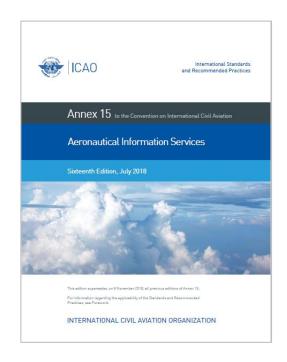






Annex 15 states that ...

- 2.1.4 Each Contracting State shall ensure that the aeronautical data and aeronautical information provided are of required quality...
- 2.1.5 Each Contracting State shall ensure that formal arrangements are established between originators... in relation to the timely and complete provision of ...
- 3.3.1 Material to be issued ... shall be thoroughly checked before it is submitted ... to ensure that all necessary information has been included and that it is correct in detail.
- 3.3.2 An AIS shall establish verification and validation procedures which ensure ..., quality requirements are met.



Annex 15 states that ...

3.6.1 Quality management systems shall be implemented and maintained encompassing all functions of an AIS... The execution of such quality management systems shall be made demonstrable for each function stage.

AIP AMDT mistakes corrected by

A0172/20 NOTAMN

- Q) /QARXX/IV/NBO/E/000/999/1759N10234E999
- A) B) 2012290710 C) PERM
- E) 1.REF AIRAC AIP AMDT 1/20 (EFFECTIVE DATE 31 DEC 2020) ON PAGE ENR 3.2-1 CORRECTION ROUTE B218 ODD AIRROW UP, EVEN ARROW DOWN

. . .

4.REF AIRAC AIP AMDT 1/20 (EFFECTIVE DATE 31 DEC 2020) ON PAGE ENR 1.11-1 CORRECTION EFFECTIVE DATE 31 DEC 2020

NOTAM2021



Annex 15 states that ...

6.3.1.2 Permanent changes to the AIP shall be published as AIP Amendments.

PANS AIM states that ...

6.1.3 Specifications for AIP Supplements

When an error occurs in an AIP Supplement or when the period of validity of an AIP Supplement is changed, a new AIP Supplement shall be published as a replacement.

G0875/20 NOTAMN

- Q) /QFAXX/IV/NBO/A /000/999/2644N09411E005
- A) B) 2010190800 C) PERM
- E) REF AIP SUPPLEMENT 72/2020 REGARDING AERODROME DATA OF AIRPORT. FLW AMENDMENTS ARE MADE TO THE SUPPLEMENT.
- 1. AD 2.4: DE-ICING FACILITIES IS AMENDED AS NIL IN PLACE OF 1200 K LITRE (TANKAGE) (IOCL).

. . . .

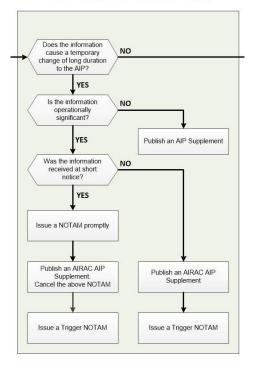


When will it be cancelled?





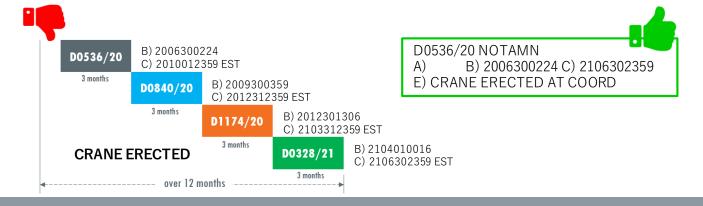
TEMPORARY CHANGE of LONG DURATION (3 months or longer)



Issue a NOTAM with long duration... if information:

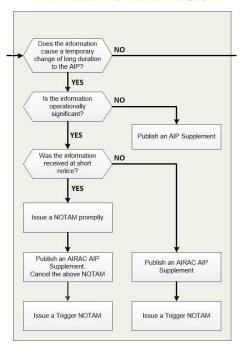
- causes a temporary change of long duration to the AIP
- · is operationally significant, and
- was received at short notice.

However, NOTAM shall be published as AIP SUP and cancelled within three months (see next slide)!



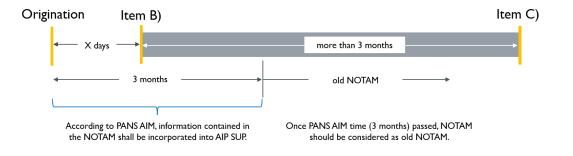


TEMPORARY CHANGE of LONG DURATION (3 months or longer)

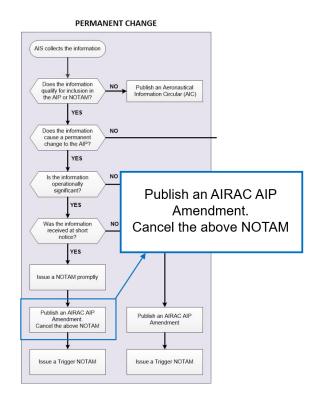


PANS-AIM states that ...

6.1.4.5 Within three months from the issuing of a temporary NOTAM of long duration, the information contained in the NOTAM shall be included in the AIP SUP.







PANS-AIM states that ...

6.1.4.4 Within three months from the issuing of a permanent NOTAM, the information contained in the NOTAM shall be included in the aeronautical information products affected.

A1166/16 NOTAMN

- /QFAAH/IV/NBO/A /000/999/0531N09525E005
- B) 1604180204 C) PERM
- F) AD HOURS OF SERVICE CHANGED TO 2300 1500

A1160/21 NOTAMN

- /OFAAH/IV/NBO/A/000/999/0531N09525E005
- B) 2105172300 C) 2105311500
- E) REF NOTAM A1166/16 TO AVOID THE SPREAD OF COVID, AD HOURS OF SERVICE CHANGED TO 0100-1100

NOTAM**2021**



PANS-AIM states that ...

6.1.4.6 When a NOTAM with estimated end of validity unexpectedly exceeds the three-month period, a replacement NOTAM shall be issued, unless the condition is expected to last for a further period of more than three months; in this case, an AIP SUP shall be issued.

Repetitive NOTAM replacements

- clearly in violation of the original intent of NOTAM
- not compliant with PANS-AIM procedures (6.1.4.6)
- not counted in NOTAMETER



W0622/20 NOTAMN

- Q) /QOBCE/IV/M/A/000/999/4355N08729E005
- A) B) 2010020200 C) 2012310800
- E) NEW TEMPORARY OBST ERECTED AS FLW, ALL THE DATA ...

W0762/20 NOTAMR W0622/20

- A) B) 2012291339 C) 2103291559
- E) NEW TEMPORARY OBST ERECTED AS FLW, ALL THE DATA...

W0126/21 NOTAMR W0762/20

- A) B) 2103291225 C) 2106291559 EST
- E) NEW TEMPORARY OBST ERECTED AS FLW, ALL THE DATA...



Negative Factors on NOTAM Proliferation

Trend Analysis by Region

Select a region, or click **WORLD** for all:



NOTAM that <u>shall not</u> be issued...

- Information that shall not be notified by NOTAM are clearly stated in Annex 15 (6.3.2.4)
- If you get a request to issue a NOTAM for the information as stated in Annex 15, educate the originator and do not publish the NOTAM.
- A NOTAM should not be issued since it did not qualify as operationally significant



The AIS Manual states that ...

6.3.7.3 ... Any NOTAM using EST must be cancelled or replaced before the date-time specified in Item C).

Failure to cancel or replace a NOTAM using EST implies that the NOTAM will continue to be promulgated for an indefinite period of time.

C0377/12 NOTAMR C0350/12

Q) /QXXAH/IV/BO/A/000/999/

A) B) 1204250625 C) 1210271630 EST

E) HRS OF OPS TWR 118.75 MHZ (TX/RX),...

G0995/19 NOTAMN

Q) /QPICH/I/NBO/A/000/999/

B) 1911010000 C) 2003312359 EST

E) REFER EAIP AD2 SECTION AD2.24 REGARDING VOR RWY 07
PROCEDURE OF AIRPORT. FLW AMENDMENT IS MADE TEMPORARILY:
1.CIRCLING OCA(H) FOR CAT D IS AMENDED AS 3060(1206) FT. AMEND

ACCORDINGLY

-28 days

-12 days

G0244/20 NOTAMR G0995/19

Q) /QPICH/I/NBO/A/000/999/

A) B) 2004280441 C) 2010312359 EST

EST Passed

G0984/20 NOTAMR G0244/20

Q) /QPICH/I/NBO/A/000/999/

A) B) 2011121156 C) 2105312359 EST







Implement and maintain

Implement QMS and maintain it properly.

What can we do?



Remove

Identify old and very old NOTAM and their causes. Remove existing old NOTAM, e.g. by transferring the information to the correct publication.



Resist

If you get a request to issue a NOTAM for information which shall not be notified by NOTAM, educate the originator and do not publish the NOTAM.



Request

If you are not sure how to deal with an old NOTAM situation, reach out. You can get help from your ICAO RO or HQ, AIS/AIM groups, or the AIS community in other States.



Message to Member States...



Let us only promulgate NOTAM that are operationally significant to the users, and with the highest level of quality possible, i.e. all NOTAM are current and up-to-date.

ICAO CAPACITY & EFFICIENCY













DIRECCIÓN GENERAL DE AERONÁUTICA CIVIL

AIS - CHILE

AlS Working Group: Mr. Pablo Pérez Fernández

Mr. Nelson Aravena Luzanto

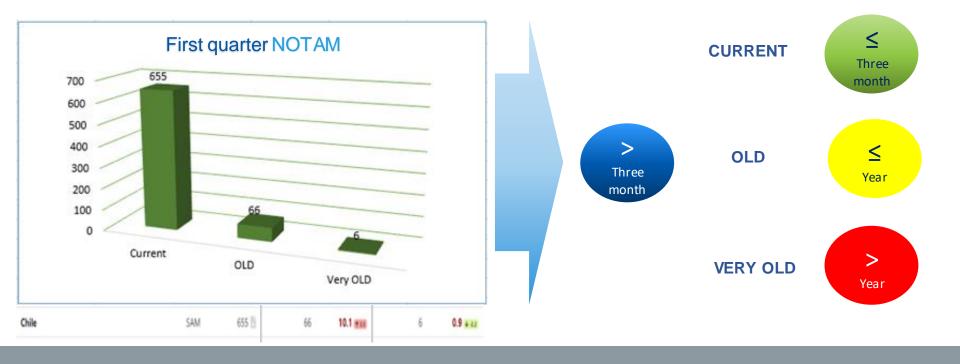
Presented by: Mr. Francisco Uzieda Cortés

ICAO



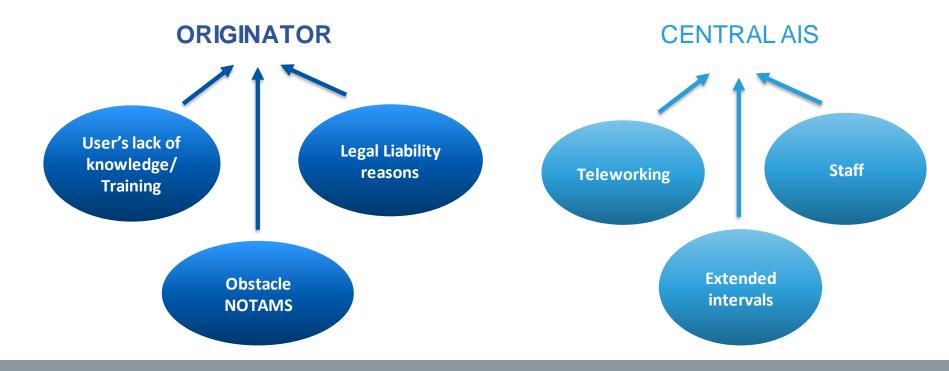


SITUATION FIRST QUARTER 2021





CAUSES DETECTED





ACTIONS TAKEN:

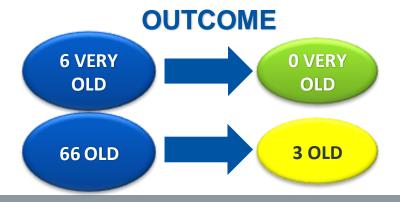
- 1. SHORT-TERM AIS TASK FORCE.
- 2. OLD / VERY OLD LIST CHECK AND COMPARE.
- 3. QUALITY CONTROL

PENDING CANCELLATION

ENTERED IN AMDT

PENDING CANCELLATION

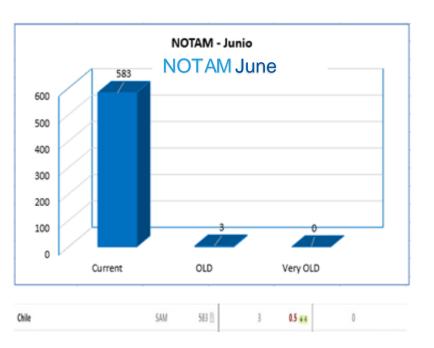
NOT ENTERED IN AMDT

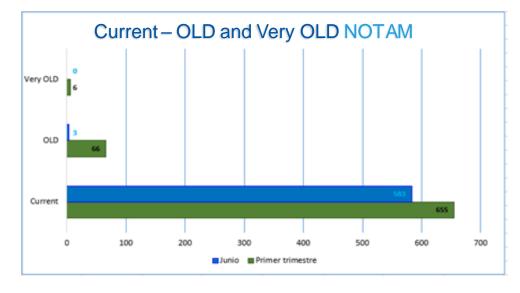


NOTAM2021



CURRENT SITUATION





Very old NOTAM: - 6 (100%)

Old NOTAM: -63 (96%)

Total NOTAM: -73 (11%)

AROs relevance

check





LESSONS LEARNED

AIS/MAP QA Failure at origin

NOTAM "Validated" by NOF



ACTIONS FOR THE FUTURE

- Increase of AMDT per year
- Update the national AIS documentation (PRO AIS NOTAM)
- Coordination and training
- Annual Training Plan for Aerodrome AISs
- Aerodrome AIS training courses (Flight Services Technician TSV)







DIRECCIÓN GENERAL DE AERONÁUTICA CIVIL

AIS - CHILE

Thank you





Presented by

Ms. Agnieszka Ostrowska

Aeronautical Data Service, Lido Flight 4D Lufthansa Systems

CAPACITY & EFFICIENCY

NOTAM2021





highly engaged employees



1 st quality gate



Quality
Assurance
Specialists



Lido Flight 4D
Aeronautical Data Service
are
PEOPLE





OTS **EXPERT**



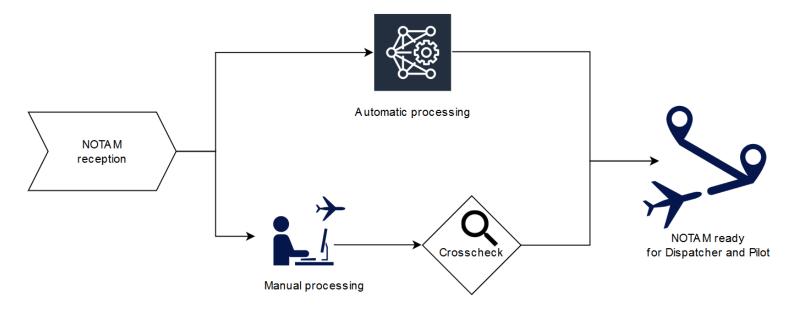


3 shifts every day





NOTAM Process





NOTAM processing – what does it mean for us?

Attaching NOTAM to specific object, in given time and space

Assessing briefing and flight planning relevance

F2839/21 NOTAMN

- Q)ZSHA/QFALT/IV/NBO/A/000/999/3159N11659E005
- A) **ZSOF**
- B) 2105202301 C) 2108201629
- D) 2301-1629
- E) AD NOT AVBL FOR ALTN ACFT WITH WING SPAN MORE THAN 56M

EXCEPT EMERGENCY FLIGHT DUE TO WIP.





NOTAM processing – what does it mean for us?

Attaching NOTAM to specific object, in given time and space

Assessing briefing and flight planning relevance

A2252/21 NOTAMN

- Q)EBBU/QRACA/IV/NBO/W/095/999/5010N00455E039
- A) EBBU
- B) **2106031330 C) 2106041300**
- D) **03 1330-1500, 04 0730-0830 0930-1100 1200-1300**
- E) TSA26A ARDENNES 01 ACT.

GAT ALLOWED TO CROSS TRACK MATIX-MMD ON FIXED LVL BLW FL195

AFTER COOR BTN BELGA RADAR AND CRNA/NORD

F) **FL095 G) UNL**



NOTAM processing – what does it mean for us?

A2088/17 NOTAMN

Q)EPWW/QRALW/IV/NBO/AW/000/020/5215N02101E030

A)EPWA

B)1707050000 C)1707072359

E)FLT RESTRICTION AREA EA 201:

LATERAL LIMITS:

CIRCLE 5KM RADIUS CENTERED ON POINT: 521434N 0210057E

VERTCAL LIMITS: UPPER: 2000FT AMSL

LOWER: GND

ALL FLT ARE PROHIBITED IN THE AREA EXC FLT:

- IFR WI CONTROLLED AIRSPACE TO FM AD EPWA . ONLY COMMERCIAL FLT (SCHEDULED AND NON-SCHEDULED AIR TRANSPORT OPERATIONS, CARGO)
- HEAD, SAR, HOSP
- POLISH MEDICAL AIR RESCUE (LPR)
- GARDA
- FIRE FIGHTING (FFR)
- STATE AVIATION ACFT, EXC FLT BY STATE UNMANED AERIAL VEHICLES (UAV).

PILOT-IN-COMMAND OF ACFT OR FLT ORGANISER CONDUCTING FLT AS HEAD, SAR, HOSP, FFR, POLISH MEDICAL FLIGHT RESCUE, GARDA OR STATE ACFT THROUGH THE ACTIVE AREA EA201 IS OBLIGED TO NOTIFY THE HEAD OF THE DUTY TEAM OF THE DUTY OPERATIONAL SERVICE OF THE FLIGHT OPERATIONS CENTRE-AIR COMPONENT COMMAND IN ADVANCE OF THE PLANNED FLT. CONTACT +48 261 828 202 261 828 220.

FLIGHT CREWS CONDUCTING FLT WI RESTRICTION AREA ARE OBLIGED TO MAINTAIN TWO-WAY RADIO COMMUNICATION. WITH THE RELEVANT ATS UNIT, FPL FOR ENTRY INTO EA201 MUST NOT BE FILED IN THE AIR.

EPWA AD MUST NOT BE INSERTED INTO THE FPL AS ALTN AD.

OTHER FLT WI EA201 ARE POSSIBLE ONLY WITH THE PERMISSION OF THE AIR OPERATIONS CENTRE COMMAANDER -AIR COMPONENT COMMANDER UPON PRIOR APPLICATION MADE NOT LATER THAN 24HR BEFORE PLANNED FLT.

CONTACT:

TEL: +48 261 828 144 261 828 727

FAX: +48 261 828 467

MAIL: COP.DKP(A)RON.MIL.PL

F)GND G)2000FT AMSL



NOTAM processing – what does it mean for us?

Enrich NOTAM text with additional information whenever needed

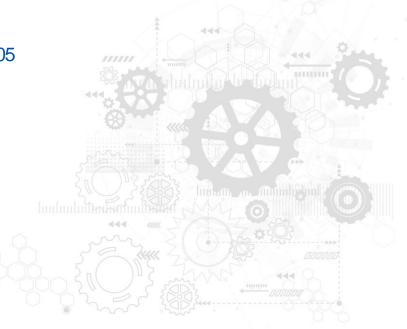
B3318/21 NOTAMN

- Q)LECM/QXXXX/IV/NBO/A/000/999/4057N00530W005
- A) LESA
- B) 2105100600 C) 2108020600EST
- E) REF AIP AIRAC SUP 156/20, PHASE 4 ACT

LIDO REMARK

PHASE 4: WORKS ON TWY T-1 AND T-2.

TWY CLOSED: TWY T-1, T-2, C-1 AND C-2 (...)







NOTAM processing – what does it mean for us?

Request for clarifications if needed

C1283/21 NOTAMN

Q)UEEE/QFFAH/IV/NBO/A/000/999/6232N11402E005

A) UERR

ICAO

- B) 2103271030 C) 2106121030
- E) AD CAT 7 FOR FIRE FIGHTING PROVIDED:

SUN 2100 - MON 0900,

MON 2300 - TUE 0900,

TUE 2300 - WED 1030,

WED 2300 - THU 1030,

THU 2300 - FRI 0900,

FRI 2300 - SAT 0900,

OUTSIDE OF THESE HOURS AD CAT 7 FOR FIRE FIGHTING PROVIDED.





Pilots need to focus on significant flight information!



Lido Flight offers filter and NOTAM selection criteria (configurable)

- Time (NOTAM validity against intended time of operations of a flight)
- Corridor (horizontal and vertical)
- Airline
- Aircraft Type
- Briefing Relevance (focus on fixed wing Airline Operations excl. GAT, MIL)
- Type of OPS (alternate, take-off, landing)
- NOTAM Filtering (rule based NOTAM filtering application for airline operator)



NOTAM in Lido Flight briefing

OIIX A0006/21 02JAN0625-24MAR2359

REF AIP SUP 21/19 (24 OCT 19), AWY Z4 CHG AS FLW: FM ULETA TO RABER MAG TR: 056/237, DIST: 18.0 NM, MNM FL 240, RNAV5, LATERAL LIMIT 10 NM, BIDIRECTIONAL. FM RABER TO LUBIX MAG TR: 057/237, DIST: 31.4 NM, MNM FL 200, RNAV5, LATERAL LIMIT 10 NM, BIDIRECTIONAL. FM LUBIX TO SITEL MAG TR: 057/237, DIST: 43.1 NM, MNM FL 200, RNAV5, LATERAL LIMIT 10 NM, BIDIRECTIONAL. FM SITEL TO TABNI MAG TR: 057/238, DIST: 37.3 NM, MNM FL 200, RNAV5, LATERAL LIMIT 10 NM, BIDIRECTIONAL. FM SITEL TO TABNI MAG TR: 057/238, DIST: 32.2 NM, MNM FL 200, RNAV5, LATERAL LIMIT 10 NM, BIDIRECTIONAL FM TABNI TO EMESA MAG TR: 058/238, DIST: 32.2 NM, MNM FL 200, RNAV5, LATERAL LIMIT 10 NM, BIDIRECTIONAL NM, BIDIRECTIONAL FM TABNI TO EMESA MAG TR: 058/238, DIST: 30.0 NM, MNM FL 200, RNAV5, LATERAL LIMIT 10 NM, DIRECTIONAL NM, BIDIRECTIONAL NM, BI

HCC A0182/21 01FEB0000 FEB230

0000-236 MPOHAL RESTRICT DIARE ESTABLISHED UP DIMILITARY OPERATIONS AND UNMANNED AIRCRAFT WITHIN REAL OUND BY THE FLW COC. DIPO 15: 4136.0000 474012N0215133E 474138N0214937E 474142N0214617E 402 N021440 E 4740 3N0214154 4600213931E 473800N0213352E 474349N0213520E 474617N0215143E 474130N0215420E JUL 3OSZO MENY) TURTHER INFO ABOUT THE ACTUAL OPR HR VIA TEL: +36 30 247 6142. FL / FL035

LOV 0042/2----JAN0703-09APR1500 ES

TEMPORARY CABLEWAY FOR MATERIAL TRANSPORT ERECTED AREA RAURIS SEIDLWINKELTAL KELLGRABEN BOTTOM STATION SUMMIT STATION 471047N 0125823E 471057N 0125746E ELEV AT THE BASE: 1010M/3314FT AMSL 1650M/5414FT AMSL MAX HEIGHT ABOVE GROUND 75M/247FT AGL LENGTH OF CABLEWAY APRX: 860M/2822FT OBST MARKED STRAIGHT LINE DEFINED BY: 471047N 0125823E - 471057N 0125746E FL / FL057

Example NOTAMs shown during Kickoff Webinar in EDDM-WSSS briefing

1200 NOTAMs in sample briefing









Number of NOTAM exploded
High percentage of old NOTAM



Global Campaign for NOTAM improvement to ENHANCE SAFETY













Working together to eliminate old NOTAM

Second NOTAM2021 progress webinar on 31 Aug 2021 at 1200 UTC