

NOTAM Reporting Guidance

A **NOTAM** is a notice distributed via telecommunication that provides information about the establishment, condition, or change of any aeronautical facility, service, procedure, or hazard. The timely knowledge of this information is essential for personnel involved in flight operations (ICAO Annex 15, *Aeronautical Information Services*).

THE PROBLEM WITH NOTAMS

NOTAMs are intended to enhance situational awareness by informing pilots of changes to published aeronautical information (AIP) and relevant new hazards. However, as pilots worldwide know, NOTAMs are often anything but clear and concise. The proliferation and poor quality of NOTAMs pose significant issues. This overload of unclear or redundant information hinders rather than helps a pilots' ability to assess safety critical information, leading to important safety information being overlooked.

In theory, NOTAMs should improve situational awareness, but in practice, they often do the opposite.

NORMALIZATION OF DEVIANCE

This situation has developed gradually. It is partially a result of pilots and operators quietly accepting the slowly growing number of NOTAMs each year, and the way they have been published. This is known as the **normalization of deviance**: when systemic inefficiencies become accepted as normal. In this case, pilots and operators have accepted an increasing volume of information without a proportional increase in time or tools to manage it.

It is impossible to point out where a line of criticality was crossed, but the focus must now be shifted towards improving the situation.

WHAT IS THE INDUSTRY DOING TO IMPROVE THE NOTAM SITUATION?

Some airlines and data providers have made efforts to improve the readability and presentation of NOTAMs by offering various improvements in categorization and clarity. Unfortunately, these efforts lack consistency, and a new industry standard for presenting NOTAMs is needed. The use of Artificial Intelligence has great potential and, in some instances, has demonstrated significant improvements over the current system.

ICAO is working with stakeholders to design the System Wide Information Management (SWIM) network, which should improve the situation significantly, as the distribution method of changes in the current aeronautical information is completely redesigned. IFALPA is represented in this process, and the voice of the pilots is heard. The implementation of the new system will be in the 2030s.

All the above improvements also require input from line pilots. No one sees the briefing material in use in daily operations like a line pilot. The operators, NOTAM originators and data houses, need pilot input especially when the information we require is presented to us in an ambiguous way. With the use of modern tools, NOTAMs should be presented to pilots worldwide in a way that is **prioritized, categorized, filtered, and easy to read and comprehend**.

THE NEED FOR ACTION

The current situation has come about partly because pilots did *not* react to a slowly deteriorating system. To correct it, pilots must commit to improving it.

Air Safety Reports are a recognized means of addressing safety issues. Those NOTAMs which are not in-line with the ICAO Annex criteria become a safety issue. They burden pilots and dispatchers with irrelevant and/or outdated information during flight planning and preparations. A thorough and careful analysis of all NOTAMs is extremely time-consuming. This creates time pressure during flight preparations and often forces pilots to rush through and potentially miss vital, safety-critical information.

This problem in information management should be addressed with the same integrity as any important safety hazard.

We now encourage pilots to use Safety Reports to report all NOTAM-related issues where the content, or the unclear presentation of content, is difficult to understand, or otherwise not suitable for conveying safety-related information. By doing so we are sending a clear message to the operator, the NOTAM originator and briefing package provider of what we see as irrelevant, or information presented in a way which does not consider how the information is used.

Following is a list of examples where a safety report could be filed, where a NOTAM:

- is **irrelevant** to flight operations
- is **ambiguous** or difficult to interpret
- has the same information repeated in several NOTAMs in same PIB
- is not in line with publication criteria, NOTAMs containing information with no direct relation to that duty's flight operations

- is useless, i.e., containing no sensible content or information
- contains incorrect information - the description presented in the NOTAM does not reflect the actual situation
- exceeds recommended expiration dates - a NOTAM should not be valid for more than 90 days
 - Note: a NOTAM can be extended up to 150 days. In most cases, if the information is valid for this long, it is not of a temporary nature and should be incorporated into AIPs (or other manuals) or, at the very least, should be replaced by an AIP-supplement.
- is old (150-365 days old) or not valid
- is very old, i.e. was published over 365 days ago

REMINDER

Information which might seem irrelevant to a pilot may still be filed correctly in accordance with ICAO SARPs. There are several types of NOTAMs that pilots might find irritating but are published according to the ICAO NOTAM criteria, e.g., stand closures, cranes, etc. In these cases, filing a Safety Report could help the data house who is providing the briefing package to learn more of what pilots need or don't need, and possibly improve the filtering and categorization of NOTAMs.

HOW TO WRITE A NOTAM REPORT

Be professional, accurate, and factual

As with other reports, the content and wording of the Safety Report is important to accurately convey the issue and why it is a safety concern. The language used in a NOTAM report may also affect the influence of the report. The use of emotional or extreme language, such as "this NOTAM is terrible garbage" should be avoided. In most cases, the NOTAM is published with sincere intention to promote safe flight. With our report, we enforce our viewpoint of what we consider to be "timely knowledge which is essential to personnel concerned with flight operations."

When filing the report of a NOTAM, the following should be included in the report:

- NOTAM designator, e.g., EDDB – C25/22 (EDDB is the originator, C25-22 specifies the individual NOTAM)
- Date of report
- Reason for filing the report, for example:
 - NOTAM is over 150 days old and should be transferred into AIP supplements or other manuals.
 - NOTAM contains irrelevant information for personnel concerned with flight operations.
 - NOTAM contains information which is not of temporary nature

- information about construction work is duplicated several times in PIB
- Indicate why this type of NOTAM should not be issued

SUMMARY

We have tools, awareness, and momentum. What we need is action.

Pilots are the ultimate end users of the NOTAM system, and we have not responded adequately to longstanding issues with NOTAMs that have been evident for years. There have been several incidents and accidents where the excessive amount, poor quality, or archaic presentation of NOTAMs have been identified as contributing factors.

What has been missing is the motivation and guidance to improve the NOTAM system. As the ultimate end users of NOTAMs, pilots are the most suitable people to provide both. As the number of NOTAM-related Safety Reports increases, the operators, data houses, and originators will have concrete evidence of the issues pilots are facing with the NOTAM system.

Below are three example cases to illustrate how NOTAM overload, poor formatting, and lack of prioritization can cause crews to miss or misunderstand critical information, sometimes with near-catastrophic consequences.

Air Canada Flight 759, San Francisco (2017)

The crew of an Airbus A320 nearly landed on a taxiway occupied by four other aircraft at night, coming within seconds of a major disaster.

NOTAM Role: The pilots missed a critical NOTAM about a runway closure because it was buried in the middle of a 27-page briefing, lost among excessive and poorly prioritized information.

Virgin Australia 737-800 – Brisbane (2022)

The aircraft took off from a section of a closed runway.

NOTAM Role: The captain misinterpreted a dispatcher's note and dismissed a relevant NOTAM as not applicable, partly due to information overload and distraction. The ATSB found that NOTAM oversights and confusion contributed to the serious incident, emphasizing the risk of missing safety-critical data when faced with too many NOTAMs.

Sky Lease Cargo 747-400F – Halifax (2018)

The aircraft overran a runway and was destroyed after landing on a shorter runway instead of a longer, available one.

NOTAM Role: The crew received 98 NOTAMs, 37 for Halifax alone, with key information about available approaches and runway status buried in repetitive, all-caps text. The confusing and cluttered presentation led the crew to believe that no approaches or lighting were available for the longer runway, influencing their decision to land on the shorter one.