

DGAC SAFETY INFO LEAFLET No. 2020/02

A safety info leaflet is a document widely distributed by DGAC, without a regulatory obligation, whose purpose is to draw the attention of certain actors in the aviation sector to an identified risk or to promote best practices.

This safety info leaflet is available on: https://www.ecologique-solidaire.gouv.fr/info-securite-dgac

Operators concerned	Operators of aircraft who suffered a significant drop of flight activity or a flight shutdown during the Covid-19 health crisis
Topic	Threats related to the resumption of air operations
Objectives	Drawing the attention of the operators concerned to certain risks to which they are likely to be exposed and proposing risk mitigation measures in order to follow up the resumption of activity
Context	The Covid-19 pandemic led a large number of aircraft operators to partially or totally suspend their operations; some personnel have been idle for several weeks or even months. In addition, flight operations upon recovery will be different in many aspects, as a result of the operator's choice or not, as compared to previous operations. This creates unusual safety issues.
	Furthermore, as part of the notification of events to the Authority, the French Civil Aviation Authority (DSAC) was able to identify a number of risks associated with operations during the crisis that are likely to continue when activity restarts.
	The information disseminated through this Safety info leaflet deals with generic threats that may concern operators, and good practices that may be associated with them.
	Problems related to the management of Pilot training prior to flight scheduling are the subject of a specific communication. ([FR] https://meteor.dsac.aviation-civile.gouv.fr/meteor-externe/#communications/3120).
Threats and risk mitigation measures	Organisation Workforce management The resumption of flights presupposes upstream reactivation of the various services; otherwise, resources must be provided to prepare the associated procedures for possible changes in activity (route changes, new destinations, development of cargo operations, etc.). ✓ Strategy for managing the reactivation of the various departments (OCC, Engineering, SMS, analysts, etc.) in line with the volume and nature of the operation being resumed.
	Competency management A significant drop or cessation of activity raises the issue of the level of personnel competency whose duties are directly related to safety (crew members, OCC staff, personnel in charge of crew planning, etc.), even if a training deadline is not exceeded.

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The requirements for training validity and recent experience laid down in the regulations are not designed for the atypical situation where an entire constituted team (flight crew, OCC duty manager, etc.) resumes its duties after a reduction or interruption of activity. Refreshers should therefore be considered, and may, for example, take the form of training courses (possibly checked by a knowledge test), publications, and reminders of procedures. The duration of the interruption, the type of flights resuming and the previous experience of the staff concerned are relevant criteria for adopting the appropriate format.

- ✓ Identification of the need for refresher training for personnel whose duties are directly related to safety, before they return to work.
- ✓ In particular, for Pilots, reflection on the relevance of a return simulator session, which may include practice on normal procedures, handling ability or even practice on certain abnormal and emergency procedures. The provision of free time during this session, the use of which would be at the discretion of the pilots, is also a good practice.

For pilots, the above-mentioned communication contains additional elements dealing with the peremptory topics of the recent FCL.060 experience and the resumption of interrupted CCOs.

For cabin crew, it is recalled that the GM1 to ORO.CC.145 recommends, in certain cases, a refresher course following interruption of flight activity for less than 6 months.

Documentary watch

- ✓ In case flights were totally interrupted, operators may have had to suspend the functions of monitoring and taking into account regulatory publications (regulatory texts, AD, MMEL, AIP, etc.), safety information of all kinds, and the functions of keeping operational databases up to date.
- ✓ Ahead of the resumption of flight activity, sufficient anticipation of the "catch-up" action of the standby period.

Control of subcontracted activities

Certain subcontractors have also been impacted by the crisis and may not be able to provide the service in accordance with the defined terms and conditions, whether in normal operation (e.g. ground handling, preparation of weight and balance documents, flight preparation, database updates, compliance audits) or in a degraded state (e.g. IT support for flight planning software).

✓ Identification of possible service reductions of essential subcontractors (staff availability, reuse of contractual training...), adjustment of contracts as necessary. This control also covers chartered airlines.

Changes

Independently of the crisis, operators may have programmed changes in procedures, IT tools, the organisation of certain services, etc... These changes, if implemented, will therefore come in addition to the substantial adaptations that part of the staff already has to manage. The simultaneous modification of a large number of procedures presents the risk of application errors by staff.

✓ Reflection on the postponement of non-essential changes to the activity.

Risk Management

- ✓ During the recovery period, flight operations will be significantly different from those experienced by the crews and the airline. Furthermore, the current context may lead the organisation or the crews, if no precautions are taken, to accept a higher level of operational risk than in the past for economic reasons or to maintain the airline's activity.
- Reactivation of event reporting and analysis processes as soon as operations are resumed.
- Reaffirmation of flight safety as a company priority.

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✓ Reminder of the importance of feedback and the principles of just culture.

Psychological impact on staff and passengers

This period of COVID-19 crisis may generate, even more than in normal times, high levels of stress for people who are essential links in the system's reliability. These high levels need to be taken into account to follow up this recovery (uncertainties about the future and the recovery, personal or professional difficulties, fatigue, etc.).

It is essential, at all organizational levels, to be aware of this in order to prevent individual problems potentially affecting the collective.

- ✓ Although the entry into force of Regulation (EU) 2018/1042 has been postponed by 6 months, airlines are invited to take these future requirements into account.
- ✓ Taking into account the good practices in terms of psychological support presented in the French Civil Aviation Authority guide "Management of psychological risks and addictions", in particular §7 Peer support programme.

Management of crews' flight and rest time

Flight scheduling

External constraints on rotations, such as closed airspaces or hazards during turnarounds, may lead to increases in flight or turnaround times. A small margin over the maximum flight duty time can induce time pressure.

- ✓ Verification of the adequacy of scheduled flight duty times.
- ✓ Flight planning with margins to protect against the risk of 'hurry up syndrome' on all flight phases (preparation, taxiing, approach, ...).
- ✓ More frequent evaluation of the operational reliability of flights and, if necessary, appropriate reprogramming.

Presentation of crews to their assigned base

As long as the availability of public transportation is not nominal, some crew members may find the travel time between home and their assigned base significantly extended, and thus arrive with a level of fatigue that is not compatible with the safe conduct of the flight.

- ✓ Raising awareness among pilots on the need for them to make their own arrangements, including temporary accommodation, in order to maintain a reasonable travel time (it is recalled that the GM1 CS FTL.1.200 recommends 90 min).
- ✓ Provision of accommodation at the airport by the operator for the night before a flight service when relevant.

This risk should be systematically considered in cases where a change of the assigned base is envisaged by the operator in order to compensate for the closure of the airport to which its crews are currently assigned.

Quality of rest during stopovers

Operators may be faced with unknowns regarding rest and eating conditions at outstations, conditions which will, in addition, evolve: restricted choice of hotel, prohibition on going out of the hotel room, limited food options, etc. These factors are likely to affect the quality of rest.

 Regular evaluation of outstation rest conditions, in particular by reactively taking into account feedback.

Ground operations

The resumption of operations at outstations, particularly at remote outstations, has the particularity of being carried out without close supervision by the ground operations manager. Moreover, depending on the number of outstations and the rate at which they are reopened, the supervision of ground operations can generate a particularly high peak workload.

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- ✓ Establishment of an outstation reopening protocol or checklist for the benefit of each supervisor present locally.
- ✓ If necessary, prioritisation of supervisory actions according to the risk profile associated with each outstation.

Flight operations

Flight preparation by the operator

Numerous changes in the infrastructure and services provided to air operators impact on operations: airspaces closures, closures of destination or alternate aerodromes, closures of runways and/or taxiways for aircraft storage requirements, reductions in ancillary services such as air traffic services, weather information, and rescue services.

- ✓ Re-study of certain routes is necessary (e.g. aerodrome becoming isolated due to closure of usual alternate aerodromes, new ETOPS routes or routes with increased time to an available alternate aerodrome).
- ✓ Fuel policy: reaffirmation of the fuel policy to pilots and the possibility of carrying reserve fuel to cover the various unknowns (e.g. possible airport saturation, airspace restrictions).

Crew flight preparation

The changes in infrastructures and services mentioned above lead to a higher workload for pilots, for the study of the particularities of the flight and the number of associated NOTAMs (significant increase on long-haul flights), in particular for operators who do not have a dedicated service for the study and pre-selection of NOTAMs.

In addition, the recovery phase also experienced by maintenance services (risks of errors in maintenance tasks) and ground handling services (risks of incorrect positioning around aircraft, erroneous cargo loading, etc.) combined with the risks of technical malfunctions specifically related to the long-term storage of aircraft (e.g. additive put in the tanks to prevent the development of bacteria), requires increased vigilance for aircraft validation by crew.

Finally, in a context where all those involved in the departure of a flight (pilots, cabin crew, mechanics, ramp attendants, etc.) may need information to manage new situations, the actions of each may be marred by interruptions of unusual and multiple tasks, generating errors.

- ✓ Increase in the time allocated to flight preparation, in order to reduce the time pressure for the study of the flight dossier, pre-flight inspection, cockpit and cabin preparations.
- Reminder of how to protect yourself from task interruptions.

Placement of passengers

Distancing measures can lead to an unusual distribution of passengers throughout the cabin. Such distribution requires the operator to verify that its methods and systems are properly configured to ensure that aircraft is centred within the operational weight and balance envelope.

- ✓ Definition of new passenger distributions in the cabin, both to optimise the distance between passengers and to ensure centring within the operational envelope; and
- Particular attention is paid to the respect by passengers of the seats allocated to them.

Protective mask

The wearing of protective masks on board aircraft by pilots, cabin crew and passengers is required in the majority of cases. This equipment can affect the performance of certain normal, abnormal, and emergency procedures, such as the fluidity of communications among crew members and with ATC, the fitting of oxygen masks by pilots, or the wearing of breathing protection hoods by cabin crew. Lack of familiarity with the procedure to be followed can compromise its successful completion.

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✓ Adaptation of procedures impacted by the wearing of protective masks, communication of new procedures to crew members, modification of safety instructions distributed to passengers.

TEM (Threat and Error Management)

It is essential that, during briefings, crews rigorously integrate threats, whether they are unusual (e.g. proposal of a direct heading on approach by ATC made possible by a low traffic, PAX anxiety or staff stress level) or usual (e.g. runway incursion, take-off data insertion error) but more salient due to the context of a restart of the entire air sector.

✓ Taking into account the good practices in the use of the TEM method developed in IS 2020/01

Recommendations

The DGAC recommends that operators, through their safety management system:

- carry out their own safety study in order to take into account the specificities of their operation and the period of shutdown/reduction of activity;
- communicate with crews and operating personnel on the areas of risk identified and the means put in place to deal with them;
- reaffirm to these personnel their essential role in the reporting of any event occurring in operations, even without having identified an impact on safety, so that organizations can regain visibility on the risks to which they are exposed and on the operations' level of safety.

Measures taken by France in the field of aviation safety

https://www.ecologique-solidaire.gouv.fr/en/measures-taken-france-concerns-aviation-safety-deal-consequences-covid-19-epidemic

[FR] https://www.osac.aero/covid19 (see in particular the newsletter on this page)

https://www.ecologique-solidaire.gouv.fr/en/human-factors-0

EASA - Coronavirus-related information

https://www.easa.europa.eu/the-agency/coronavirus-covid-19

Flight Safety Foundation - Covid Safety Resources

https://flightsafety.org/toolkits-resources/covid-19-safety-roadmap-and-punch-lists/

Annexes

SKYBRARY - Coronavirus Disease 2019

https://www.skybrary.aero/index.php/Coronavirus Disease 2019 (COVID-19)

Airbus - Aircraft storage recommendations

https://safetyfirst.airbus.com/aircraft-parking-and-storage/

French Civil Aviation Authority (DSAC) Guide - Managing Psychological Risks and Addictions

[FR] https://www.ecologique-

solidaire.gouv.fr/sites/default/files/guide gestion risques psychologiques addictions.pdf

Safety Info Leaflet 2020/01 - Threat and Error Management (TEM)

[FR] https://www.ecologique-

solidaire.gouv.fr/sites/default/files/Info securite Threat and Error Management.pdf