AVIA GLOBAL

AVIATION CONSULTANTS

1. MESSAGE FROM THE EDITOR

Welcome to the 87th edition of Avia Global Update.

The aviation industry has been reeling from the impact of global travel bans in the wake of the coronavirus pandemic. As people are forced to stay home, either due to lockdown or self-imposed isolation, transportation and tourism have been among the hardest hit sectors. Most airlines and non-scheduled operators are either fully grounded or operating at very limited capacity. Many are still paying leases or rentals, and some are operating 'ghost flights' to hold their flight slots. If travel restrictions continue, the International Air Traffic Association (IATA) estimates that industry passenger revenues could plummet $252 billion - 44% below 2019's figure.

A more mindful era of air travel
With so much uncertainty on the horizon, how and when will the transportation industry recover? Businesses will have no choice but to be more cautious about spending. The aviation sector especially could see reduced expansion and increased consolidation. It could be a fight for survival for some carriers, but the subsidies and support offered by governments will hopefully help reduce the impact.

While nobody can predict when people's lives and businesses will return to normal, a reduction in leisure travel may be expected, as people choose to stay home for their own safety over the coming months. With constrained budgets, families will certainly re-evaluate their annual vacations - at least for the foreseeable future.

Exchange rates may also impact people and businesses in certain countries as the US dollar strengthens, making it less affordable for people to travel. Airlines could be forced to reduce ticket prices as a result, which might impact their overall business.   working from home becomes the norm, companies could re-evaluate business travel and curtail unnecessary spending involving travel for business meetings, events, corporate events and incentive trips.

More coordinated support could be required in the coming months to aid strained economies. The aviation industry will play a strategic role in the global recovery, with consolidation through mergers and acquisitions (or equity positions in publicly traded airlines).

At the moment, however, airlines and non-scheduled operators will have to focus on managing costs, whether through voluntary leaves of absence, reassigning staff wherever possible, deferring aircraft maintenance and deliveries, ceasing capital expenditure, grounding high operating cost aircraft, returning leased aircraft early, or cancelling materials purchase orders to reduce operating costs as quickly as possible to preserve liquidity. Some of these measures could help the industry tide over challenges in the coming months.
https://www.arabianbusiness.com/comment/445663-can-the-global-aviation-industry-weather-the-storm

Vivienne

2. A SMALL MATTER OF KNOWLEDGE

What We Learnt About Air Safety from IATA's 2019 Figures

The International Air Transport Association (IATA) has released its annual airline safety report today. It confirms the widely held belief that air travel is getting safer. All the primary safety indicators improved against 2018 figures and against the 2014 - 2018 average. Here's what the safety report had to say.

IATA has just released its annual safety report. The good news - flying is safer than ever. **The accident rate is decreasing**

There were a total of 53 airline accidents in 2019. The accident rate per million flights was 1.13 or one accident every 884,000 flights. In 2018, there were 62 airline accidents; an accident rate of 1.36 per million flights or one accident every 733,00 flights. Between 2014 and 2018, there were 63.2 airline accidents annually; an accident rate of 1.56 per million flights or one accident every 640,000 flights.

The majority of these accidents were not fatal. In 2019, eight of the 53 accidents were fatal. Across those eight fatal accidents, 240 people died. Of those eight fatal accidents, four were jet aircraft and four were turboprops.

2019 was a better year than 2018. In 2018, there were 11 fatal accidents in which 523 people died. Over the five years between 2014 and 2018, there was an average of 8.2 fatal accidents every year with an average of 303 fatalities annually. Note that a fatality must occur during an accident. IATA isn't counting passengers dying of natural causes or illness in-flight.

Hull losses are becoming fewer - which is a plus
The third indicator the IATA safety report looked at was hull losses. Again, the figures suggest hull losses are becoming rarer. Dealing first with jet aircraft hull losses, in 2019 the hull loss rate was 0.15 which equalled one loss for every 6.6 million flights. In 2018, the jet aircraft hull loss rate was 0.18, which was one loss for every 5.5 million flights. Across the five year 2014 - 2018 average, the jet aircraft hull loss rate was 0.24, which equalled one loss for every 4.1 million flights.

Turning to turboprop aircraft, the 2019 hull loss rate was 0.69, which equates to one loss for every 1.45 million flights. In 2018, the turboprop hull loss rate was 0.70, equalling one loss for every 1.42 million flights. Over the five-year 2014-2018 average, the turboprop hull loss rate was 1.40 or one loss every 714,000 flights.

The accident rate is higher for turboprop aircraft than for jet aircraft.
Alexandre de Juniac, IATA's Director General and CEO, has an interesting twist on these statistics, He says; "The release of the 2019 Safety Report is a reminder that even as aviation faces its deepest crisis, we are committed to making aviation even safer. Based on the 2019 fatality risk, on average, a passenger could take a flight every day for 535 years before experiencing an accident with one fatality on board."

Statistically, you'd need to fly a lot before your number is up
Human life expectancy is 79 years, so you'd have to live through nearly seven lives before you had a really bad flight. In 2018, there were approximately 45 million flights carrying 4.5 billion passengers. So even then, statistically, you have about a 1% chance the fatality will involve you.

If those odds are still a bit too short for you, you can minimize the risks further by being choosy about where you fly. Referring back to hull losses, the global rate in 2019 was 0.15, significantly down on the 0.24 five-year 2014 - 2018 average. Some regions had zero hull losses in 2019. Those regions include the Asia Pacific, the Middle East, Europe, and Latin America.

Flying remains one of the safest ways to travel and is getting safer.
North Asia had zero hull losses across the five-year 2014 - 2018 period but recorded a hull loss rate of 0.15 in 2019. The hull loss rate in Africa is also worth noting. It has been 1.01 across the five years from 2014 - 2018. The 2019 hull loss rate of 1.39 was above the five-year average in the region.

The 2019 IATA Safety Report tells us that flying is inherently safe. That's not exactly news. What is relevant is the trend towards even safer flying. A combination of pilot training, better aircraft, more rigorous systems and tougher oversight means this trend is set to continue. Which is good news for us all.
https://simpleflying.com/iata-2019-safety-figures/

3. AFRICA'S 2020 HAZARDS, INCIDENTS, ACCIDENTS AND SAFETY OCCURENCES
Source, amongst others, PlaneCrash info.com; News24, Aviation Herald, Flight Safety Information, SACAA, AIN, FSF.

DATE	A/C TYPE	FATALITIES	LOCATION
ACCIDENTS INVOLVING FIXED WING AIRCRAFT IN AFRICA DURING 2020			
09 Jan 2020	Lockheed C130BZ Hercules	0	Goma, DRC
12 Jan 2020	FK14B POLARIS	2	Springs, RSA
12 Jan 2020	Windlass Trike	0	Petersgift Airfield, RSA
14 Jan 2020	Sling 2	0	Morningstar Airfield, WC, RSA
23 Jan 2020	Cessna 550	3	Outeniqua Mountains, RSA
28 Jan 2020	Sling 2	0	East London, EC, RSA
28 Feb 2020	Twin Comanche	0	Grand Central Airport, RSA
ACCIDENTS INVOLVING ROTOR WING AIRCRAFT IN AFRICA DURING 2020			
25 Jan 2020	SANKA AK 1-3 Z	0	Glen Eden, EC, RSA
04 Feb 2020	RH22	0	Worcester, WC, RSA
24 Mar 2020	Bell 505 Jetranger X	1	Christiana, NW, RSA
12 Apr 2020	Gazelle	0	Northern Mozambique

FIXED WING INCIDENTS AND OCCURRENCESIN AFRICA DURING MAR AND APR 2020

DATE	A/C TYPE	LOCATION	DETAILS	TYPE OF OP
01 Mar 2020	B737-800	Brazzaville, Congo	A/C was climbing out of Brazzaville when the right-hand engine (CFM56) failed and was shut down. The aircraft returned to Brazzaville for a safe landing.	COM
06 Mar 2020	A320-200	Juba, South Sudan	A/C was climbing out of Juba's runway 31 when an engine (CFM56) ingested a bird prompting the crew to stop the climb at 7000 feet and return to Juba for a safe landing on runway 31 about 20 minutes after departure. Two engine blades were found damaged as result of the bird strike.	COM

21 Mar 2020	727-200 freighter	N'djili, Kinshasa, DRC	A/C returned to N'Djili Airport shortly after departure due to a hydraulic fault. The aircraft vacated the runway onto a taxiway and stopped clear of the runway. The crew evacuated via slides. After the crew had evacuated the aircraft began to roll backwards, crossed the runway and came to a stop on soft ground past the runway lifting the nose gear temporarily off the ground.	FRT
11 Apr 2020	A330-200	Pointe Noire, Congo	Police Officer discharged 2 bullets into the aircraft one of which penetrated the fuselage.	COM
21 Apr 2020	C130-BZ	Waterkloof, RSA	Nose wheel retracted/collapsed during start up.	MIL

ROTOR WING INCIDENTS AND OCCURRENCES IN MAR AND APR 2020				
0	0	0	0	0

AERODROME HAZARDS	
Bamako, Mali	ATC – low level of proficiency
Beni, Democratic Republic of Congo	RWY rehabilitation nearly completed; Birds, Security
Entebbe, Uganda	ATC; Birds
Bangui, Central African Republic	People and animals alongside the runway
Goma, Democratic Republic of Congo	ATC – low level of proficiency, birds, runway incursions
Juba, South Sudan	Poor ATC, heavily congested airfield, large birds, local insurgents
Lanseria International Airport, RSA	Birds, construction work on airside and landside
Rand Airport, RSA	ATC trainees, birds
Timbuktu, Mali	ATC information only with RPAs (Drones) operating in the area
JKIA, Nairobi, Kenya	Poor Security – check for stowaways / tampering with aircraft

4. EMERGENCY RESPONSE PLANNING

Blake Emergency Services is the International Crisis Management and Contingency Planning and Response Specialist who, although based in the UK, have extensive experience in Africa having handled accidents, incidents, counselling, repatriation, DNA sampling and confirmation, in amongst others Lagos, Nigeria; Fez, Morocco; Pointe Noire, Congo; Moroni, Comores; Maputo, Mozambique and more recently Ukraine, The Netherlands, Indonesia and Mali. Please go to www.blakeemergency.com or contact rethea.mitchell@blakeemergency.com

If you are interested in becoming a volunteer for Blake Emergency Services, please contact Rethea at the address given above.

An Emergency Response Plan is a required section of your SMS and may also be added to your Operations Manual.

Emergency Response, Incident Response, Operations Control and Family Assistance training together with the writing of Emergency Response Plans and Procedures is now offered through Blake Emergency Services. For more information, please contact Rethea on Rethea.mitchell@blakeemergency.com.

5. HENLEY AVIATION TRAINING

Should you wish to make a booking for any of the following courses please contact Candice on +27 (0)11 024 5446/7 or by email to training1@henleyglobal.org.za. The full 2020 schedule is posted on the website - http://henleyglobal.org.za/events/

DATES	COURSE	LECTURER	COST EXCL VAT
11 – 12 May 2020 29 – 30 June 2020	Quality Assurance Auditor Course	Dan Drew	R3,270=00
18 May 2020 15 June 2020	CRM Refresher	Verity Wallace	R1,320=00
18 May 2020 15 June 2020	Dangerous Goods Refresher	Verity Wallace	R1,050=00
18 May 2020 15 June 2020	AvSec	Verity Wallace	R 850=00
1 – 2 June 2020	SMS Introductory Course	Dan Drew	R3,250=00
1 – 6 June 2020	Integrated Safety Course	Dan Drew	R8,470=00

Notes:
Cost per delegate includes all training materials, refreshments and lunch.
Attendees paying in cash on the day are eligible for a 10% discount
Both Recurrent CRM and Dangerous Goods Training Courses are available upon request – even at short notice.

On request we also offer –

Air Cargo Security (Part 108)	Health and Safety (Medical)
Cargo and Warehouse Security	Risk Management & Investigations
First Aid and the Law	

6. HOW COVID-19 COULD RUIN WEATHER FORECASTS AND CLIMATE RECORDS

Twice per year, Ed Dever's group at Oregon State University in Corvallis heads out to sea off the Oregon and Washington coasts to refurbish and clean more than 100 delicate sensors that make up one segment of a US$44-million-per-year scientific network called the Ocean Observatories Initiative. "If this had been a normal year, I would have been at sea right now," he says. Instead, Dever is one of many scientists side-lined by the coronavirus pandemic, watching from afar as precious field data disappear and instruments degrade. The scientific pause could imperil weather forecasts in the near-term and threaten long-standing climate studies. In some cases, researchers are expecting gaps in data that have been collected regularly for decades. "The break in the scientific record is probably unprecedented," says Frank Davis, an ecologist at the University of California, Santa Barbara.

Davis is the executive director of the Long-Term Ecological Research (LTER) programme, a network of 30 ecological sites stretching from the far north of Alaska all the way down to Antarctica. Consisting of both urban and rural locations, the LTER network allows scientists to study ecological processes over decades - from the impact of dwindling snowfalls on the mountains of Colorado to the effects of pollution in a Baltimore stream. At some sites, this might be the first interruption in more than 40 years, he says. "That's painful for the scientists involved."

Weather forecasting takes a hit

Other monitoring programmes are facing similar gaps. Scientists often ride along on the commercial container ships that criss-cross the world's oceans, collecting data and deploying a variety of instruments that measure weather, as well as currents and other properties of the ocean. Most of those ships are still running, but travel restrictions mean that scientists are no longer allowed on board, says Justine Parks, a marine technician who manages one such programme at the Scripps Institution of Oceanography in La Jolla, California.

Port strikes and political instability have halted specific cruises in the past, Parks says. But to her knowledge, this is the first time that the entire programme has shut down for an extended period of time.

Measurements made at sea are important for forecasting weather over the oceans, as well as for keeping longer-term records of ocean health and climate change, says Emma Heslop, a programme specialist in ocean observations at the Intergovernmental Oceanographic Commission in Paris. Her group is still trying to assess the extent of the damage that the pandemic is doing to the ocean-observing community as a whole, but researchers are already feeling some effects. Over the past 2 months, they've seen steadily declining numbers of shipboard observations - amounting to, since the beginning of February, a 15% loss of stations that are reporting data. And although the community is working hard to figure out other ways to collect important data, the situation is likely to worsen as the pandemic stretches on. "The longer the restrictions are in place," she says, "the longer it will take for our operations to recover." Commercial flights provide invaluable weather data, too - measuring temperature, pressure and wind speeds as they cruise. The meteorological data provided by the US aircraft fleet had decreased to half its normal levels as of 31 March, according to the US National Oceanic and Atmospheric Administration (NOAA).

Maintenance woes

Satellites and weather balloons can fill in some gaps, but certain aircraft data are irreplaceable. "It's certainly the case that with the virtual loss of worldwide aviation, there is a gap in some of the records," says Grahame Madge, a spokesperson for the UK Met Office in Exeter.

The Met Office estimates that the loss of aircraft observations will increase their forecast error by 1-2%, but notes that, in areas where flights are typically more abundant, scientists' forecast accuracy might suffer even more. The Met Office maintains more than 250 UK weather stations that provide continuous or daily feeds of autonomously collected atmospheric and weather data. For now, those systems are functioning just fine, but if an instrument goes down, Madge says, it will be difficult to get staff out to fix the problem.

Much of the world's atmospheric-monitoring data are collected with little to no human intervention, and such projects should be able to keep running. The Advanced Global Atmospheric Gases Experiment, for example, measures ozone-depleting compounds, greenhouse gases and other trace components in the atmosphere at 13 remote sites around the globe. Many of their systems are autonomous: the stations are each staffed by one or two people who perform routine maintenance to keep the instruments running. Ray Weiss, an atmospheric chemist at Scripps who leads the project, says that two instruments have broken down so far, but the loss of a single instrument or even a whole site for a few weeks is unlikely to jeopardize the network's monitoring capabilities. Arlyn Andrews, who runs NOAA's greenhouse-gas-monitoring programme, says that impacts on that network have been "relatively minor", and less than 5% of the NOAA sites have lost data so far.

Unless the situation gets a whole lot worse, Weiss anticipates that the programme will escape relatively unscathed. "We're limping through, is the bottom line."
https://www.nature.com/articles/d41586-020-00924-6

7. MANAGING AVIATION SAFETY

From the way aircraft are built to the design of airport masts, many factors are pivotal to maintaining safe aviation. You are more likely to win an Oscar than be involved in a fatal air traffic accident-and to be honest; the odds are not even close. This variance in chance is less likely due to your acting skills and more down to the aviation industry's dedication to safety. From the way aircraft are built to the design of airport masts, many factors are pivotal to maintaining safe aviation.

Air travel has extremely high safety standards and everything is designed to make the trip safe for everyone involved. Thanks to this dedication to safety, even though the number of flights per year is consistently increasing, the number of air traffic accidents continues to fall.

Even with continuous mitigation of risk, with the number of journeys rising, the chance of an accident happening still increases. For this reason, the next step in increasing safety standards becomes mitigating the outcome of an incident by reducing the impact. Achieving this requires a thorough investigation of the most accident-prone areas of an air journey.

Statistics from the Boeing between 2008 and 2017 shows that for the 502.8 million departures over ten years, on its aircraft, there were only 2,386 fatalities. Boeing also reports that of these fatalities 56% occurred during the final descent and landing phase. While a similar report from Airbus indicates that 48% of all its recorded fatalities, between 1999 and 2018, also occurred during the landing phase.

These figures indicate that descent and landing are where more should be done to reduce the severity of incidents. For airport operators and designers, one of the critical parts to mitigating potential dangerous or fatal incidents is ensuring that all structures surrounding the runway are frangible.

Frangible structures
Frangible structures are designed to break into fragments, rather than bend when sustaining an impact. An easy way to think about this is by comparing how a cracker breaks in comparison to a gummy bear. Frangible structures are a major priority for airports, because of the vast array of visual and non-visual items situated near runways, taxiways, and aprons.

The International Civil Aviation Organization (ICAO) has stringent rules concerning frangible airport support structures-demanding that they must be designed to break, yield on impact, and minimize the effect of an incident. For example, support structures should not impose a force in excess of 45-kilonewtons on the colliding aircraft, while the maximum energy needed to break a mast at the collision should not exceed 55-kilojoules.

ICAO requirements also require any structure located 240 meters from the end of the runway, and within 60 meters of either side of the centreline of the runway and approach lines, must be of low mass and frangible. Due to ICAO requirements, there are few materials that can match these specifications, while still being feasible for airport applications.

Material considerations
Composites are one of the primary materials from which airport frangible structures are built. Fiberglass is the most commonly used composite in the sector because it results in strong structures that can be constructed with walls as thin as two millimetres, which do not require breakoff points, unlike frangible metal structures.

Fiberglass doesn't obstruct radio frequency signals, meaning airport operators don't have to worry about operation critical communications being blocked. Composites are also more corrosion resistant than metals, are built to work in environments ranging from -50 to +80˚C, and can tolerate exposure to water, rain, humidity, maritime climate, and ultraviolet radiation from the sun.

To maintain stability, materials selected for frangible airport structures must only allow for a certain deflection. For example, the ICAO specifies that light masts can only deflect ±2° in the vertical axis and ±5° in the horizontal axis when the support is subjected to environmental loads, including wind and ice.

Design needs
All of these requirements demonstrate that there are many considerations while designing a frangible airport structure. For example, lighting towers play an important role in aircraft approach, as the masts guide planes towards the runway during descent. These lighting towers can range upwards of 35 meters in height, but frangibility is only required for the top twelve meters of taller towers. Even though only the top third of a lighting tower must be frangible, it must also be strong enough to resist strong wind speeds. This is crucial because most frangible structures cannot remain stable if they are taller than six meters and would require non-frangible bases in order to remain stable. Working with a reliable expert in frangible airport structure manufacturing helps to ensure that all the necessary industry and environmental requirements are met.

While flying is one of the safest methods of transport, it requires constant vigilance to maintain current high safety standards. The aviation industry cannot afford to rest on its laurels and must continue to constantly upgrade safety procedures. As long as this focus on safety is at the forefront of importance for those in the industry, you can continue writing your Oscar acceptance speech knowing you are more likely to win the prestigious award than ever be involved in an aircraft incident.

"Aviation Safety, in all of its guises, is Avia Global and GAAC's' first and only concern and to that end our clients' safety on the ground and in the skies, is our Alpha and Omega."

8. WHAT HAPPENS WHEN PILOTS DON'T GET THEIR FLYING HOURS?

CNN) - The coronavirus pandemic has grounded most of the world's airplanes for the immediate future. But when aviation eventually reboots, pilots will need to be up to speed. That doesn't just mean polishing their Ray-Bans and dusting off their navy-blue blazers. It means brushing up on flight-deck skills and ensuring they keep within the boundaries of aviation's stringent safety regulations.

And that is presenting a looming challenge as pilots remain housebound. "Pilots require frequent training and 'recency' to be able to fly," says Brian Strutton of the British Airline Pilots Association, or BALPA, which represents the interests of all UK pilots.

"Recency" means complying with regulations that stipulate a pilot must have successfully carried out three take offs and landings -- one of which using the cockpit's autoland facility -- within the previous 90 days. To qualify for flying both at daytime and night-time, commercial pilots also need to perform three night-time take-offs and landings within the 90 days, which are harder because the pilot has less visual cues. This covers the three daytime take-offs and landings as well.

But there are other annual checks, as well. These include the License Proficiency Check, which a pilot would have to do every year to keep their pilot's license valid. Also, the airline that the pilot flies for will have to perform an Operational Proficiency Check every six months. "Most of these checks could be conducted in what is known as a 'D level' simulator," says Adam Twidell, an experienced pilot and CEO of PrivateFly, a booking platform for on-demand jets. These are the most realistic and offer the highest definition and lifelike responses -- just like flying the real thing.

Simulators are also important to help pilots keep their skills sharp. While much can be practiced using computer games such as Microsoft Flight Simulator, there is no substitute when it comes to ratings, training and certifications. Pilots need to access real, full-scale flight simulators.

But for that to happen, simulators need to be available. In the UK, for example, many facilities offering simulators are closed. There is also the issue of the availability of instructors and examiners to conduct checks. A co-pilot also needs to be present. "There's going to be a significant backlog of available simulator slots. When airlines do want to get back to normal operations they won't be able to do it instantly," Twidell tells CNN Travel. Expense is an issue, too. Simulator time costs around $300 to $400 an hour, and that's without the necessary associated personnel. It's all an enormous undertaking.

Additionally, there are regular fire and smoke training requirements, where pilots have to go into a smoke-filled aircraft and evacuate it. There are also first aid courses and crew resource management training, which involves assessing how crew members work together as a team.

Combine the complexity of the different types of training and certifications that flight crew might have to catch up on if the grounding persists for a prolonged period with the fact that the majority of the world's 290,000-plus active pilots are sitting at home, and the scale of the imminent problem becomes all too apparent.

Pushing the boundaries

To help alleviate the pressure accumulating from the potential expiration of the pilots' medical certificates and ratings (additional elements of the pilot's license that allows them to fly specific types of aircraft), time extensions are being granted worldwide by regulatory authorities.

Across Europe, the EU Aviation Safety Agency, or EASA, has extended the deadlines for certain requirements on condition that each airline comes up with a detailed pilot training plan that the agency will assess. If it's a credible plan, an extension could be granted.

In the United States, the Federal Aviation Administration's assistant chief counsel for enforcement, Naomi Tsuda, says that, due to the extraordinary circumstances related to the pandemic, the FAA will not take legal action against pilots in cases of noncompliance with medical certificate duration standards if their certificate expires between March 31 and June 30, 2020.

"The FAA will re-evaluate this decision as circumstances unfold, to determine whether an extension or other action is needed to address this pandemic-related challenge," said Tsuda in an FAA Notice of Enforcement Policy.

In the UK, the Civil Aviation Authority, in line with EASA guidance (while the UK is still in the EU), has exempted all operators, aircrew, instructors and examiners engaged in commercial air transport from the normal validity periods for licenses, certificates and ratings that expire before October 31, 2020. Deferring the expiry of licenses and certificates is certainly helpful. But all of this is incredibly stressful for the airlines' workforces.

Staffing issues
The world's longest and largest twin-engine airliner, the Boeing 777-9X, has completed its first test flight from Boeing's wide-body factory near Seattle.

"Over 40 airlines have grounded their entire fleets, including airlines like EasyJet, and the majority of others have grounded 80-90% -- it's just unheard of. That gives you an idea as to how many pilots are not flying aircraft," says Sam Sprules, Managing Director at pilot recruitment agency AeroProfessional.

Sprules tells CNN that a lot of flight crew are either grounded on minimal pay or being asked to take unpaid leave for the next couple of months. In some countries, airlines are operating from the furlough or pay subsidy schemes, and in worst case scenarios crew are being terminated. "Recruiting of flight crew has pretty much dried up at the moment while airlines are rightly focusing on trying to consolidate their finances just to survive," he says. This is a colossal body-blow to an industry that was booming before the Covid-19 crisis took hold. However, Sprules also says that a small minority of aviation businesses are taking an optimistic approach, believing that recovery will be sooner rather than later. "What they want to do is keep their recruitment moving to capitalize on the fact that there are a lot of skilled crew in the market right now."

Face-to-face interviews are now replaced with online tools such as Microsoft Office Teams or Skype. Airlines can build up pools of candidates so that as soon as the sector is back into recovery mode and restrictions start to subside they can jump into action.

"We are doing that with a few of our clients -- conducting applicant gathering and documentation screening and getting candidates to a point where we can go no further, until things start to move again," says Sprules. You start forgetting things"

So besides using computer simulators, how can pilots stuck at home keep their cockpit skills honed?
Karlene Petitt, a US-based Boeing 777 pilot and author of "Normalization of Deviance: A Threat to Aviation Safety," tells CNN that pilots could use this time of grounding for educational improvement. She says that in an age where certain aspects of the flight deck are automated, pilots need to know, procedurally, how to set up the flight deck, which buttons to push and which checklists to read. "You start forgetting things if you don't use them," she says. "And much of what we, as pilots, do is cognitive based. If you can keep that alive, then you're not going to lose proficiency.

"It would be nice if the airlines made available online training tools that we had during initial training or during initial type rating, so we could go and maintain proficiency while at home, until we get back into the sky." Carriers could also have the ability to track and see which of their pilots are actually utilizing those tools, says Petitt, adding that even a home-made low-tech approach could be beneficial too: In the past, when Petitt was "out of the cockpit" for a couple of years in the days before online pilot training was an option, she made flashcards and what she calls a "paper trainer," a sort of wall poster, to practice cockpit procedures at home.   "We did this years ago. You just physically move and touch the button because the motion of actually touching where you would be touching in the airplane helps to instill it into memory."

The well-being factor
US airlines are requesting an aid package from the federal government that could amount to about $50 billion due to the coronavirus, according to industry group Airlines for America.

Joji Waites, flight safety specialist at BALPA, tells CNN that his organization is ensuring that the few crew that are still flying (on cargo, medical, repatriation, and a few scheduled services) are equipped with protective kits where necessary, and checking that aircraft are properly cleaned. "For those that are not flying -- those that are furloughed -- the shift is towards well-being," says Waites. Beyond the practicalities of brushing up procedural skills, pilots need to keep their minds in good shape too. Flight crew are used to quite a structured way of working and are conditioned to knowing what is coming up in the next month in terms of their flight schedules.

Waites says that BALPA has been sharing, with its members, mental health and well-being tips from the MIND Charity and from Public Health England. "There are specific resources available," says Waites. "And there is a requirement coming out later this year in August for airlines to have a peer support network program staffed by pilots for pilots for them to raise, confidentially, concerns of well-being and mental health." Many airlines already have these in place ahead of when the regulation comes out, pointing pilots towards those facilities within their airlines where they can share concerns, by "having people to talk to about their anxieties and what they are going through."   "Pilots are not used to sitting around," says Waites. "We're thinking ahead to the time when things hopefully resume, and scheduled flights start up."
https://www.cnn.com/travel/article/pilots-recency-flying-hours/index.html

9. IMPLEMENTING SMS IN AIR MEDICAL OPERATIONS

Mario Pierobon spoke to industry experts and air ambulance providers about the challenges of implementing safety management systems in air medical operations

Safety management systems (SMS) have been at the forefront of safety-related initiatives in the aviation industry for the last several years. There are numerous associations hosting and providing presentations on safety at industry conferences. There are private and government entities that contribute to safety, both occupational and operational. Safety management programmes at individual operators include daily briefings on safety topics and some organizations even hold events to promote safety. But what are the distinctive features of SMS in the air medical industry?

"Aviation Safety, in all of its guises, is Avia Global and GAAC's' first and only concern and to that end our clients' safety on the ground and in the skies, is our Alpha and Omega."

Safety in helicopter operations under increased scrutiny by IHSF
The International Helicopter Safety Foundation is initiating its sixth annual survey of civil helicopter operators located in key regions around the world in order to gain a broader understanding of...

SMS related initiatives
Safety is indeed a key ingredient in all aviation operations and industry bodies are committing efforts through SMS-related initiatives in the air medical sector. One such body is the National Accreditation Alliance of Medical Transport Applications (NAAMTA). "Our view on successful SMS begins with regulatory criteria in written policies, includes clear processes that look at safety from various perspectives and sets goals to measure if the desired outcomes are being met. This sentence may make it sound easy, but the key ingredient to success is understanding the needs and personality of the organization. Initiating an SMS has to fit the organization and may begin with a few steps to develop its program and a plan to grow the system as foundations solidify," said Roylen Griffin, Executive Director of NAAMTA. "As an ISO 9001:2015 quality management system company, we incorporate the 'plan, do, check, act' quality management techniques into our accreditation standards. This requires compliance with quality, safety, risk, and fatigue management criteria for our accredited operators."

Bill Cline, Chief Pilot of US-based Air Ambulance Worldwide, explained that currently, only FAR Part 121 air carriers are required to utilize SMS in their everyday operations. He added: "FAR Part 135 air carriers are invited to participate, but it is a voluntary program. Air Ambulance Worldwide and its air carrier, Air Gato Enterprises, have begun implementation of our SMS program through the FAA."

Industry associations in the US are encouraging their membership to actively participate in the Federal Aviation Administration's (FAA's) voluntary SMS program. "This is done through the sharing of best practices and experiences by members, as well as engaging directly with the FAA's SMS program office, AFS-910, and having them present at association meetings. This integration provides great opportunities for guidance from the FAA office responsible for the program, as well as feedback from the operators on challenges and opportunities," said Joseph Resnik, Vice-President of Safety at Air Methods.

SMS requirements
The Commission on Accreditation of Medical Transport Systems (CAMTS) also sets out SMS implementation requirements in its standards. "The mission is to improve patient care and safety of the transport environment. Requiring that a medical transport service has an SMS is just part of the overall safety expectations," said Eileen Frazer, Executive Director of CAMTS. "Specifically, since 2010 the standards require that SMS must include a statement of policy commitment from the accountable executive, a risk identification process and risk management plan that include a non-punitive system for employees to report hazards, risks and safety concerns, a system to track, trend and mitigate errors or hazards, a system to track and document incident root cause analysis, a safety manual (electronic or hard copy), a system to audit and review organizational policy and procedures, ongoing safety training for all personnel (including managers) and a system of proactive and reactive procedures to ensure compliance."

In the US, the FAA has specific guidelines and implementation procedures that have to be followed. "SMS has been a part of FAR Part 121 air carriers for a while now and [the FAA] have seen the improvement and success of the program. While it has not been mandated by the FAA for FAR Part 135 air carriers, the design and planned events / benchmarks are similar. The FAA inspectors that are a part of the process for 135 air carriers welcome the participation and have been working closely with us to implement our system. It is a very long and detailed process, one that requires co-ordination and participation by both parties," Cline told AirMed&Rescue.

One of the main SMS requirements is that having a full implementation plan is essential.
The expectation would be for an initial reactive SMS with details of how it will move forward to a generative SMS
In the past, as NAAMTA audited documented safety programs and interviewed personnel, it was learnt that the policies existed, but the documentation of safety-related items were less consistent across the board. "When one considers the high risk associated with medical transports, most organizations are safe in their actions, but the documentation to demonstrate their safety practices or to follow through on items gets pushed aside as other priorities arise. Monitoring events, identifying resolutions, and ensuring they can be closed prevents reoccurrence. We can learn from others, as long as we understand the processes involved. Understanding the what, why and how of problems helps us close the problem out and share what was learned," said Griffin.

Another important aspect is that the unique circumstances of aeromedical transports require pieces from various resources, but putting the safety puzzle together continues to lack the complete picture, observes Griffin. "Using the puzzle concept, pieces must be utilized from the aviation industry, additional pieces come from the medical industry, more from maintenance and each entity has good input," he said. "Now that the FAA is moving forward with the requirement of an SMS, NAAMTA is ramping up its safety standards. These new standards will incorporate input from the ISO 45001 Health and Safety Standard. As our accredited members submit their quarterly reporting for quality, safety, risk and fatigue management, trends can be identified and shared with our alliance members. Through this process, we have seen much progress in the world of safety of our organizations."

CAMTS standards also specifically address safety culture. "A Safety Culture Survey is sent to each employee prior to a site visit and is an important part of the board of director's final review. It was originally based on the AHRQ Patient Safety Culture and it has been redesigned based on the Safety Attitudes Questionnaire (SAQ) by the University of Texas Center for Excellence. The final analysis of the data results in a report sent to the program that compares their scores to other programs," said Eileen Frazer. "Questions are carefully designed to measure thoughts and attitudes about teamwork, safety climate, job satisfaction, stress recognition, perception of management and working conditions. The individual taking the survey is also able to submit comments that may help the site surveyors frame their questions during interviews."

A major challenge for aeromedical services is that an aviation operator may have an SMS that fulfils the requirements of the FAA or European Aviation Safety Agency (EASA), but does not incorporate the medical crew factors of teamwork and patient care issues. "If the aviation operator does not employ the medical crews, we often find two different SMS. In this case, we will encourage that the staff understands each SMS and their responsibilities of reporting safety concerns through the appropriate chain of command for an open and transparent process," said Frazer.

Organisational experiences

Through SMS implementation, there is an opportunity for significant improvement in change management. "With SMS, there is a more formalized and structured way of identifying risks on the front end of projects and putting mitigations in place prior to implementation. It provides a more proactive culture as opposed to a reactive culture. It is a culture change for an organization," said Resnik. The safety culture must be driven from top management to each base and each employee.

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"Implementing a process to document, record action items, and create a loop-closure to verify that safety issues are not just closed, but that the resolution is verified and validated is key. The time frame to incorporate all SMS requirements is dependent upon the personality of the organization. Another factor is the amount of resources the company applies to the safety system, as it makes the difference in timing. This is not an overnight solution, but if everyone in the company shares in the process, the safety culture comes together," said Griffin.

SMS implementation also comes with some hurdles to overcome, as Resnik pointed out: "A main part of risk mitigation is engaging all parts of the organization that may be affected by a change or identified hazard / risk. Creating that engagement and collaboration as a normal rhythm within the company's culture can be a challenge."

"For Air Methods, [SMS implementation] has been a matter of integrating the safety organization as a facilitator of the risk assessments, actively engaging the other departments to know they have our support from the top down. Additionally, engaging the senior leaders to ensure they are driving their teams in the right direction and setting the expectation has been a tremendous help. Because we already had the basic structure in place, we have been able to move quickly and expect to have full conformance in 2020. Typically, the initial gap analysis and development of the implementation plan can take up to a year with full implementation and conformance completed within 36 months after the FAA's acceptance of the plan," said Resnik.

When there is commonality in the desired outcome and employees are engaged in the process, the entire organization maintains an awareness of the overall safety goals. "Truly, there is no end to building an SMS, just progress," said Griffin. "An organization has to consider how it will measure progress and assess whether each department is setting indicators for safety compliance and whether these mesh with company goals. These indicators or goals should be measurable. With these measures, one can assess the activities, determine if the desired outcome is achieved, and then determine if a focus needs to be placed on another factor of safety for the next quarter. The SMS takes on a life that evolves, circles back, and moves forward as the needs of the organisation are monitored."

Air Medical Operations

There are specific aspects that air operators have to consider when conducting air medical operations as opposed to regular commercial operations. The Royal Flying Doctor Service of Australia was established in 1928 as a charitable organization to provide health services to remote and isolated communities. The focus has always been on the provision of healthcare. "Engagement with the clinical side of the organization on aviation safety matters has naturally presented some cultural challenges. For example, medical and aviation risks are measured differently, medical focusses more on what was the level of harm done, if any, while aviation assesses what was the potential for harm," said Alexandra. "We have the same goals, but speak different languages, which naturally presents its own challenges. Fortunately, we have clear lines of communication within the organization to help overcome these obstacles."

By assessing all the contributing factors of a medical transport, it is possible to see the variety and the need for documented processes and a solid SMS. "The most important thing is to start with the needs of the patient and assess if a solution can be provided. Then it is necessary to consider who is making the transport request and if there is an insurance or an assistance company involved in the process with specific criteria that need to be factored," said Griffin. "Questions that typically need to be asked include: Is the information provided accurate? Is the timeframe realistic? Will the transport require a crew change? Is the receiving facility verified with a bed for the patient? One then needs to add the elements of aviation, the lifesaving efforts of the medical crew, the unique and varying needs of the patient, the potential dynamics of accompanying family members."

The realisation of every variable can be a demanding task. "The challenge is to start with building the foundation and then adding elements to reach the desired outcome. No transport is ever alike; therefore, we learn as we experience, we document and share the lessons learned," said Griffin.

Indeed, each air ambulance mission is a unique undertaking. "Whereas commercial scheduled operators know their routings a year in advance, we typically receive our callouts two hours before wheels up. This presents a risk that commercial carriers do not typically face and therefore air ambulance operators see a huge benefit from creating and implementing an SMS programme," said Cline. "Our type of operation demands different types of people, backgrounds, professions, to be brought together. Being a cultural and regimented programme, all our groups work together to make the full SMS implementation a successful experience."

https://www.airmedandrescue.com/latest/long-read/implementing-safety-management-systems-air-medical-operations

10.   NEWS FROM THE JOHANNESBURG AIRPORTS

Users of the Johannesburg aerodromes must be aware of the fact that they all take Aviation Safety and AVSEC seriously. If you want to use these airports as a Pilot or are employed in any way on them, then we would recommend that you make yourself more than familiar with Part 139 in the SACARs and the Rules and Regulations applicable to that particular aerodrome. Be prepared for fines being levied if you breach any of the SARPs.

RAND AIRPORT, GERMISTON – www.randairport.co,za
Safety Meeting – Held On the 2nd Thursday of each month at 09.00 in the Old Customs Hall.
- The wearing of high visibility jackets/waistcoats is mandatory for all persons, excepting for passengers under escort, on airside. (SA CAR 139.02.22(6))
- Drivers found to be speeding on airside will have their access remote taken from them.
- Vehicles being driven on airside must carry proper mandatory insurance cover
- All delivery vehicles and visiting vehicles requiring access to airside MUST be escorted from the access gate to the premises and then after closure of their business back to the gate for egress.
- Cranes are not allowed onto Rand Airport unless their use has been specifically authorised by airport management
- All operators are required to report Bird Strikes to the Airport Rescue and Fire Fighting Services or the Safety Office even if there has been no structural damage to the aircraft as a result of the strike.
- Fuel must not be "trucked" into Rand Airport from other sources. Should there be a special requirement permission must be sought from the Airport Manager.

LANSERIA AIRPORT – www.lanseriaairport.co.za
Safety, Security and Stakeholders Meetings are held on the second Tuesday of each month from January to November at 12.00 in the LIA Training School.
- The wearing of high visibility jackets/waistcoats is mandatory for all persons, excepting for passengers under escort, on airside. (SA CAR 139.02.22(6))
- Drivers shall obey the published speed limits which are 30 on airside and 40 on landside.
- New Airgate system will come into operation soon. Details can be found in the AIP.
- There is a great deal of construction going on both Landside and Airside so extra attention is required when operating into or out of Lanseria.

GRAND CENTRAL AIRPORT, MIDRAND
Safety Meeting are held on the 1st Tuesday of each month at 12.00 in the Boardroom
- The wearing of high visibility jackets/waistcoats is mandatory for all persons, excepting for passengers under escort, on airside. (SA CAR 139.02.22(6))
- Drivers found to be speeding on airside will have their access revoked
- Should an emergency occur pedestrians are requested to stand still in a safe area out of the way of responding AR&FFS vehicles.
- During any emergency Pilots, Instructors and students should try to keep the frequencies as clear as possible
- Cranes are not allowed onto Grand Central Airport unless their use has been specifically authorised by airport management

11.   FINALE – A ROUND UP OF AVIATION RELATED TITBITS OF INFORMATION

John Menzies lays off 55% of staff as coronavirus hits air travel
March 27 (Reuters) - Airport services group John Menzies said it was laying off more than half its global workforce to cope with the impact of the coronavirus-related slump in air travel, adding that it hoped to hire many staff back in future. It also said it will need special dispensation to get aid from a UK emergency fund for which it does not currently qualify.

Among the biggest providers of fuelling, ground handling, lounge services and maintenance, Menzies said its volumes had dropped 20% in the past two weeks as airlines ground flights in response to faltering demand and government curbs on movement.

"John Menzies Plc has existed since 1833 and been listed since 1962, but never have we faced such difficult and unpredictable times," Chief Executive Giles Wilson said in a statement. Menzies, which employs over 32,000 employees at more than 200 airports worldwide, said it has reduced headcount by more than 17,500 and that the reductions are being supported by some countries' government schemes. The company said it intended to take as many staff back on as possible in future, and it later described the reductions as furloughs and not redundancies. A company spokeswoman said the company hoped "the vast majority will be back when flight volumes start to pick up again".

The company said it was waiting for the refinement of the eligibility criteria for the COVID Corporate Financing Facility (CCFF), for which it does not currently qualify. While it will receive the 80% salary aid on offer from the British government, a company spokesman said that in terms of accessing emergency credit, the group was too big to be classified as a small to medium-sized enterprise (SME), but too small to have the credit rating necessary for the CCFF. Britain's state aid programmes for the coronavirus shutdown carry conditions related to the company's contribution to the UK, rather than global, economy, and demand that firms were already on solid financial ground before March 1.

Wilson said Menzies plays an important role in the aviation supply chain, which includes airlines, airports and service providers. "Without these three components of the supply chain working together, the sector will not function," he said. Menzies said it was in talks with its lenders as it reviews all options to shore up liquidity and withstand the impact of the virus.

Edinburgh-based Menzies was a major British high street name until the late 1990s, when it reinvented itself as a major global provider of fuelling and cargo handling for airlines. Operating in 34 countries for over 500 airline customers, the company was already struggling last year with weakness in Europe, lower cargo volumes and fallout from the global grounding of Boeing's 737 MAX jets.

https://www.reuters.com/article/health-coronavirus-john-menzies/update-2-john-menzies-lays-off-55-of-employees-due-to-crisis-in-air-travel-idUSL4N2BK27P

FAA Issues Jet Fuel Biocide SAIB

The FAA has issued a Special Airworthiness Information Bulletin (SAIB) cautioning about the use of aviation fuel biocides such as Kathon FP1.5 and Biobor JF. They are used to eliminate microbiological contamination in aircraft fuel tanks, and in engines and aircraft where they are approved, the OEM's Aircraft Maintenance Manual will include the correct method of application and dosage.

According to the SAIB, several recent instances showing adverse engine effects after biocide application has been noted. While two of the events were the result of overdosing the aircraft fuel system over the recommended amount of biocide, one event caused a reaction even with the prescribed amount. The FAA told AIN, "Evidence suggests that Kathon FP1.5 biocide may deposit trace amounts of material on fuel system components when blending procedures are not followed, or under certain other conditions."

At this point the agency is not prohibiting the use of the products, but "additional investigation by the aviation community is continuing regarding the solubility characteristics of this biocide additive."

As a result, DuPont, which makes the Kathon additive, has recommended immediately discontinuing its use for aviation applications, and GE Aviation has removed it from its list of approved fuel additives while testing continues. The FAA has not had contact with the manufacturer of Biobor regarding any limitations on the use of its aviation fuel biocide.

https://www.ainonline.com/aviation-news/business-aviation/2020-04-14/faa-issues-jet-fuel-biocide-saib

Helo Operators Increase Use of Safety Tools

Results from **the** International Helicopter Safety Foundation's (IHSF) fifth annual survey of civil operators show a marked increase in the use of eight key best practices safety tools, including safety management systems (SMS) and flight data monitoring systems (FDM).

The survey garnered 1,900 responses from operators in 112 different countries, a response rate that increased by 49 percent versus a year ago. It found that overall usage of these eight tools in 2019 was 65 percent, up from 62 percent in 2018 and 59 percent in 2017. As in years past, certain industry sectors demonstrated better implementation with helicopter air ambulance, offshore energy, and law enforcement leading the way, while private flying and electronic newsgathering posted the lowest levels.

IHSF created the list of best practices after evaluating more than 1,000 helicopter accidents. They include structured maintenance programs that fully comply with manufacturers' recommendations; structured initial and recurrent training; implementation of SMS; implementation of manual health usage and monitoring systems (HUMS); installation of wire strike prevention systems; implementation of FDM; implementation of automated HUMS; and use of night vision systems when warranted.

https://www.ainonline.com/aviation-news/general-aviation/2020-04-15/helo-operators-increase-use-safety-tools

Can we help you with your aviation safety and / or quality assurance requirements?

Under SA CAR 140.01.2 if you and your organisation hold one of the following

- ✈ a category 4 or higher aerodrome licence;
- ✈ an ATO approval;
- ✈ an aircraft maintenance organisation approval;
- ✈ a manufacturing organisation approval;
- ✈ an ATSU approval;
- ✈ a design organisation approval;
- ✈ an AOC issued in terms of Part 101, 121, 127, 135, 141;
- ✈ a procedure design organisation approval; and
- ✈ an electronic services organisation approval,

then you shall establish a Safety Management System for the control and supervision of the services rendered or to be rendered by that organisation.

If you do not already have an approved Air Safety Officer and an approved Safety Management System then please contact us for assistance.

Avia Global in conjunction with Henley Air deliver the following SA CAA Approved training courses at Rand Airport;

- ✈ Safety Management Systems
- ✈ Integrated Safety Officer Course
- ✈ Quality Assurance Auditor
- ✈ Crew Resource Management (Initial and Recurrent)
- ✈ Dangerous Goods
- ✈ Human Factors for AME's
- ✈ Safety Management System Course (every 3 years)

Should your operation be of a size whereby the full-time employment of an Air Safety Officer and/or Quality Assurance Officer is not financially viable then we can provide you with Consultants who have previously held Air Services Licensing Council approval. We can also provide you with a tailor-made SA CAA approved Safety Management System and all Manuals as required by your Regulatory Authority for your operation.

For further information on how we can help you please contact Rethea or Candice on +27 (0)11 024 5446/7 or e-mail admin@aviaglobal.net

"Aviation Safety, in all of its guises, is Avia Global and GAAC's' first and only concern and to that end our clients' safety on the ground and in the skies, is our Alpha and Omega."