FOCUS

Managing Risks!

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RSAF SAFETY
Mission Success ALWAYS

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Photo Credit to Benjamin Lim for the front cover of FOCUS magazine #111

Foreword

From Head Air Force Inspectorate

Risk is defined by ICAO as the assessed potential for adverse consequences resulting from a hazard, and safety risk management seeks to proactively manage and mitigate these risks before they result in aviation accidents and incidents. In this issue of ***FOCUS***, we showcase how some of our RSAF servicemen proactively manage and mitigate such risks in their daily work tasks to ensure the successful and safe conduct of our operations and training.

We start off with MAJ Tan and CPT Kwek from 120 SQN, and CPT Tan and ME2 Eng from 143 SQN who collectively share their experiences on how they thrilled and wowed spectators during the RSAF's aerial display performances at the recent Singapore Airshow 2022.

Next, ME5 Chong from 8 Supply Depot (8SD) shares with us the risks that 8SD personnel encounter in their daily work tasks and how these risks are effectively managed such that they are able to provide 24/7 supply support for the warehousing and distribution of weapons systems and materials in the RSAF.

Lastly, MSG Tan from 122 SQN recounts his experience where he had to quickly make an "abort" call during take-off in a C-130 aircraft in order to prevent a hazardous situation from developing into an emergency in the air.

As we begin the new work year utilising the new Safety Risk Assessment (SRA) Tool to effectively and efficiently manage our risks, I urge everyone to be proactive and continue to play your part in reducing risks at your workplaces. I wish everyone a safe start to the new work year, and continue to achieve ***Mission Success***, ***Safety Always***!

COL Linus Tan Jin Kiat
Head Air Force Inspectorate

Flying the RSAF Flag High at Singapore Airshow 2022

MAJ Tan Yu Zhi
Officer Commanding
120 SQN

CPT Wilson Kwek
Deputy Standards Officer
120 SQN

CPT Tan Wei Yang
Pilot
143 SQN

ME2 Eng Wan Xiang
Air Force Engineer
143 SQN

Introduction

The Singapore Airshow 2022 (SA22) was conducted successfully from 15 – 18 Feb 2022 at the Changi Exhibition Centre against the backdrop of the on-going COVID-19 situation and pandemic travel restrictions, resulting in fewer participants. The Singapore Airshow is a biennial aerospace event held in Singapore which first debuted in 2008 and typically consists of two parts: Firstly, an exciting series of aerial display by renowned aerobatic teams from around the world or representatives from various Air Forces; Secondly, a trade show which serves as a platform for leading aerospace industry players, government and military personnel to showcase their latest defence prototypes and developments in defence technologies. This year's SA22 featured four trade days with an exciting line-up of aerial displays involving representatives from the RSAF, the United States Air Force, the United States Marine Corps, the Indian Air Force, the Jupiter Aerobatics Team from the Indonesian Air Force, Airbus and Boeing. The RSAF featured two performances this year with a pair of AH-64D Apache attack helicopters and solo aerobatics by an F-16C fighter jet in a 15-minute aerial display which comprised nine manoeuvres by the F-16C and 12 manoeuvres by the AH-64Ds Apache attack helicopters, demonstrating the manoeuvrability and precision of the two different types of aircraft. We hear the perspectives of our AH-64D pilots from 120 SQN, F-16 pilot from 143 SQN, and Air Force Engineer from 143 SQN on how they collectively came together to fly the RSAF flag high at SA22 and excite the spectators over the four days.

Sharing from the AH-64D Pilots' Perspectives

I am MAJ Tan Yu Zhi from 120 SQN and together with CPT Wilson Kwek, we are excited to share our experiences at this year's SA22.

The AH-64Ds last took part in the Singapore Airshow aerial display in 2016. While it has been six years since, 120 SQN had also participated in other aerial displays such as the RSAF50 @ Marina Barrage and National Day Parades. While the flight profiles are changed and refined to ensure that the audience would be continually 'WOW' by the awe-inspiring performances put up by the squadron, every aerial display is treated with the utmost professionalism and care, with the risks continually assessed and managed at every level to ensure a successful and safe aerial display performance every time.

Pilot Selection

Since aerial displays require the pilots to push the aircraft to the edge of its operating envelope, it is important that the aircrew are carefully hand-picked and able to demonstrate strong flying fundamentals with a high level of discipline. For the Apache aircrew selection, all the pilots selected have more than 1200 flying hours on the Apache and the aircraft captains of REDHAWK 1 and REDHAWK 2 also had prior aerial display experience in RSAF50. To ensure continuity in future displays, we also included younger pilots with no prior experience in aerial displays as the co-pilots for exposure and experience.

Designing the Manoeuvres

Drawing from past experiences and valuable lessons learnt from the inaugural aerial display by the Apaches during RSAF50 @ Marina Barrage, the team was able to plan and design the manoeuvres for the two-ship aerial display for SA22. As compared to fighter aircraft, helicopters operate at a lower speed regime. The challenge consisted of creating a sequence that would minimise the dead time between each manoeuvre. Our solution was a combination of formation and individual aircraft manoeuvres to break up the segments to achieve a compact yet impactful show. One of the most challenging manoeuvres was the close formation, where the two Apaches would fly at one rotor diameter separation around the show centre. This required intense focus with little margin of error because of the rotoring blades and the team overcame this challenge by exercising proactive crew coordination and extreme flight discipline. This manoeuvre also required a lot of teamwork, trust, and communication between the two aircraft which all epitomised the necessary components to make an aerial display successful.

Building Block Approach

We adopted a building block approach in our training plan by first familiarising ourselves with the aircraft parameters and control inputs for each individual manoeuvre in the simulator. We then trialled the sequence that we had

designed to ensure what was envisaged could be achieved. With some initial alterations, we advanced to single aircraft live flight training.

Subsequently, we started drilling our crew coordination between the pilots and the co-pilots, and also experiencing the full effects of aerodynamic conditions and G-loading that could not be fully replicated in the simulator. We started practising from a higher deck to create more safety buffer, and was eventually cleared to the show deck of 200 ft through detailed debriefs. Only when all the crew were proficient in their respective manoeuvres, we then progressed to training in pairs in Dec 2021. The Flying Display Marshals and Command Safety Officer also played integral roles during our work-up training by highlighting safety watch areas during mission briefs and providing safety oversight by being on-site at Sudong during rehearsals.

During our squadron's exchange with the British Army's Attack Helicopter Display Team in 2018, we remembered clearly that one of their display pilots commented that a two-ship aerial display was not twice, but four times more challenging because of all the coordination and synchronisation required between the two aircraft involved. Because of the complexities, we adopted a phased approach in our integrated training. We started with component training, followed by segment training which involved stitching several manoeuvres together, before finally executing the whole sequence.

Ground Preparations were Critical

Because the manoeuvring limits for the aerial display had expanded beyond our usual daily training limits, every profile required complete focus as there was very little margin for error. Mental flying therefore became even more critical. The team utilised what we called "chair flying", where we would physically walk through the entire sequence which included calling out the execution and coordination

timings, flight parameters to scan, and inter and intra-cockpit Crew Resource Management (CRM) calls. This ensured we were well-prepared for each rehearsal and allowed us to have better spatial awareness of the two aircraft for the entire display.

Aircraft tapes and external recordings were promptly reviewed after flight, and the crew were critical in pointing out every degree deviation in pitch attitude, every knot difference in speed, and every second discrepancy in execution. A detailed report on the performance of the pilots and lessons learnt were documented after every flight, and the key points from the previous flights were iterated to the team before the commencement of subsequent flights.

Since executing an aerial display puts the aircraft into regimes that we do not typically operate on a daily basis, any emergencies that occur during the display would require more expeditious diagnosis and recovery actions. Dedicated simulator sessions were therefore planned to expose the pilots to the whole range of emergencies during the aerial display sequence to manage such situations.

Safety is an Individual, Team and Command Responsibility

It was a collective effort to ensure the safe execution of the aerial display. The flying pilots were responsible for adhering to pre-briefed contracts and flying the aircraft as accurately as possible, while the co-pilots had the crucial role of exercising active CRM and even taking over controls of the aircraft when necessary. Squadron Executive Officers were essential in providing the command emphasis by stressing on safety watch areas which the crew might be oblivious to, and to guard the pilots against complacency. Flying display marshals were in charge of controlling the display sequence, fine-tuning the manoeuvres from the ground perspective, and more importantly, managing any unsafe acts.

Photo Credit: Hans Jacobs

Be Ready for Change

Since the very first display sequence that was developed on the drawing board, we had gone through many iterations before arriving at the final version that was eventually flown during the airshows. This was because the difficulty levels of some manoeuvres were not anticipated during the design phase nor experienced during the simulator sessions. We constantly reviewed and refined our manoeuvres, striving to dazzle the audience with the best performance. We were decisive in modifying our sequence with the desired outcome in mind, which was to put up a safe yet impressive show.

Stick to the Training Plan

Training commenced as early as five months prior to SA22 starting with simulator training, and we rehearsed up to three times a week in both simulator and live flights. Despite the early start, it was important to stick to the training plan because it was developed to ensure that we were sufficiently prepared before moving on to the next phase. The aircrew had to fight against complacency and the temptation of accelerating the training by progressing to the next stage earlier, or incorporating more objectives into each flight. As all the training flights were conducted in Sudong, there were only a handful of opportunities to rehearse at Changi Exhibition Centre before the airshow. The strong foundation that we established through the rigorous training plan gave us the capacity to focus on adapting to the new area of operations and reacting to constantly varying environmental conditions.

Test of Operational Readiness

Putting up an aerial display was not an easy feat. However, with trust, teamwork and discipline, we were able to execute it successfully and safely. With the final "Bow and Tail Sweep" closing manoeuvre performed by the AH-64Ds on 18 Feb, we were proud that the team concluded SA22 with zero incidents. The safe conduct of this journey in the midst of a pandemic, from inception till completion, also symbolised our strength and resilience in the face of adversity, and was indeed a testament to our operational readiness. Attack!

Photo Credit: PIONEER

Sharing from the F-16 Pilot's Perspective

I am CPT Tan Wei Yang, an F-16 pilot from 143 SQN and I am honoured to have been part of the F-16 Aerial Display Team participating in this year's SA22. The journey to achieve a safe and accident-free SA22 was not an easy one for all involved. There was a lot of hard work put in by the organising committee, aircrew and the logistics crew and there were many challenges that we had to overcome along the way.

The Challenges Faced along the Journey

For the aircrew, the challenge began right from the team selection. It was essential to select senior aircrew for this aerial display as it involved performing aerobatics at low levels and in close proximity to the populace. The aircrew had to have the experience to handle real-time emergencies calmly and not risk endangering the audience. Next, in order to ensure that the aerial display could be carried out safely, the Flying Display Committee (FDC) worked tirelessly to design the profile so as to best showcase the performances of our F-16C and the AH-64D. Given that the flight profile was going to be close to the populace and low-level, additional precautions had to be taken for weather contingencies or aircraft emergencies which made it even more challenging for the team.

Following the confirmation of the profiles, the aircrew then trialled the profiles in the simulators prior to actual flight. Many sessions of Table-Top Exercises (TTXs) were also conducted to cover various contingencies at different phases of flight. More often than not, as we were flying at 500 feet with speed in excess of 800km/h, the aircrew would have to make split-second decisions in the event that the aircraft experienced an emergency in order to ensure both the safety of the populace and ourselves. When the team was satisfied with the outcome in the simulators, we proceeded to actual flights. Additional precautions were also taken such as starting off with a higher deck height initially before gradually lowering it to the actual show deck.

Photo Credit: PIONEER

Amidst the stress and anxiety of putting up a good show, the COVID-19 pandemic also posed additional challenges for the FDC. The team had to keep themselves healthy as contracting COVID-19 would severely impact the aerial display. As such, the team conducted daily Antigen Rapid Testing (ART) to prevent any potential COVID-19 spread within the team.

During every performance, the aircrew also had to battle with the mindset to perform well while not compromising safety. In addition, the aircrew also had to potentially modify the flight profiles to commensurate with the different weather conditions. To mitigate these hazards, the team would come together to identify them and share mitigating measures during the daily flight briefs. Lastly, the FDC also provided oversight to cover potential blind spots and reminded every member that safety should never be compromised.

Final Thoughts

Being part of the SA22 aerial display team had been a very exciting journey for me and I was also heartened to know that the aerial display was well received after many months of preparation and hard work poured in by the aircrew and logistics maintainers. The team successfully put up a good show safely with the appropriate emphasis on safety. The progressive Work-Up training, TTXs and briefings served well to keep the team safe in SA22. Despite the challenges that were encountered during the journey, the RSAF continued to put up a good show with its competent airmen and women. This gives me great confidence that the RSAF will always be ready when called upon.

Sharing from the F-16 AFE's perspective

I am Military Expert 2 (ME2) Eng Wan Xiang, an Air Force Engineer in 143 SQN and I am privileged to be part of the team for the F16 Aerial Display participating in SA22 as the Logistics Cell Controller.

My Responsibilities

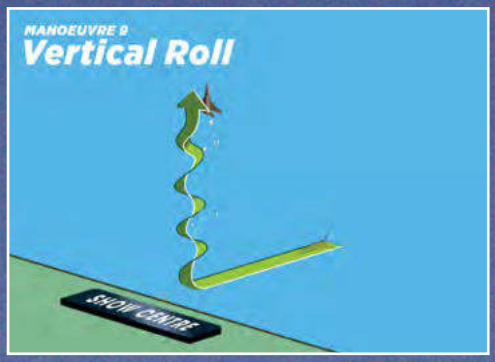
My main scope of responsibilities in SA22 as a Logistics Cell Controller included planning, coordination, and allocation of aircraft for the aerial display. Due to the COVID-19 pandemic and the necessary Safety Management Measures (SMMs), the aircrew had limited opportunities for a proper interaction with the ground crew and it was my responsibility to bridge the gap to ensure smooth operations. Throughout SA22, MAJ Matthew Foo from 145 SQN and CPT Tan Wei Yang from 143 SQN provided much guidance and advice which allowed me to quickly grasp the operation requirements and plan effectively to ensure that the aircraft could be generated timely for the aerial display training and flights. Notwithstanding, despite our best planning efforts, there were still several challenges that surfaced along the way.

Challenges Faced

The period leading up to the aerial display of SA22 was filled with several other ongoing events such as Exercise Top Ace 22, Change-of-Command Parades and routine training requirements which became competing demands with the aerial display aircraft. As such, we were unable to configure the aircraft to the required

configuration early and tight coordination was required to support all the requirements. With the strong support of the logistics team, I was able to arrange for the aircraft to be configured timely with consideration to their workload and working hours. Given the importance of SA22, robust contingency plans would have to be made as well. The tight coordination between the aircrew and logistics crew allowed us to make plans for these contingencies and cover each other's blind spots along the way. As such, I am proud to say that it was our combined effort, hard work and commitment that allowed us to achieve mission success for the show together.

The second challenge that soon appeared along the journey was with regards to the management of pyrotechnics. For the aerial display, flares were used during two aerial manoeuvres performed by the F-16. The first manoeuvre was "Cloverleaf Entry" where pilots would release flares at the start of their descent, and the second manoeuvre was "Vertical Roll", where pilots would perform a vertical spiral climb and expend the remaining flares as the finale. During the initial demand for flares to support the rehearsals and aerial display, we faced the issue of delays in the flare shipment and the lack of manpower for transportation due to COVID-19. This was the period where the first cases of the Omicron variant had appeared around the world and were rapidly spreading. I had to work closely with the relevant agencies to ensure that the flares were eventually delivered on time to be utilised during the rehearsals. Although the flares were delivered timely for the rehearsals, we were faced with another safety concern when we discovered some flare remnants on the ground around the rehearsal area after the initial practice runs. While investigation revealed that unburnt remnants were unlikely to cause harm to the spectators, additional measures were put in place to minimise the risk of remnants falling on the audience.



The third challenge faced was to bridge the gap between the aircrew and logistics crew during the rehearsals. As there were many dynamic changes along the way and lack of physical interaction between the aircrew and logistics crew due to SMMs, I served as the middleman to explain the importance and rationale for these changes.

The aerial display show started on 15 Feb 2022 and its execution was smooth and successful until the last show on 18 Feb 2022. As I was the Logistics Cell Controller managing the SA22 sorties in Tengah Air Base, I was only able to catch the spectacular aerial display show via live video broadcasting. Watching the aircraft take off and recover safely after each flight gave me a great sense of satisfaction. It also kept me highly motivated to ensure that our F-16 aircraft will continue to be well-maintained for the next flight. While most people would only see the glamorous side of the aerial display, it was actually the product of our team effort. The success of the aerial display was undoubtedly due to the combined effort of the aerial display pilots and the specialised group of ground crew who worked tirelessly behind the scenes to ensure the timely generation of the aircraft.

It was an eye-opening experience and I am extremely honoured and grateful to be part of this team. I pledge to continue to do my very best to contribute to the success of future Singapore Airshows!

ABOUT THE AUTHORS

MAJ Tan Yu Zhi was the team lead for the AH-64D aerial display during SA22, piloting REDHAWK 1. He is currently the Officer Commanding of 120 SQN and has approximately 1700 flying hours on the AH-64D. He is also a Senior Instructor Pilot and Helicopter Tactics Instructor.

CPT Wilson Kwek was the co-pilot of REDHAWK 1 for SA22. He is a Qualified Helicopter Instructor in 120 SQN and has approximately 1500 flying hours on the AH-64D. He is also the Deputy Standards Officer who is responsible for ensuring all squadron pilots are competent.

CPT Tan Wei Yang was the F-16 aerial display pilot for SA22. He is currently an Instructor Pilot in 143 SQN with 1143 hours on the F-16 Fighting Falcon. He is also the Head Training Officer who is responsible for the development of the aircrew in the squadron.

ME2 Eng Wan Xiang is the Logistics Cell Controller in 143 SQN. He was previously the Flight Line Crew (Weapon) supervisor from 140 SQN and 805 SQN. As the Logistics Cell POC, he is responsible for the coordination between the pilots and the maintenance crew for the timely output of the aircraft for SA22.

Photo Credit: PIONEER

Ground Operations Safety in 8 Supply Depot

ME5 Alvin Chong
Commanding Officer
8 Supply Depot

Overview of 8 Supply Depot

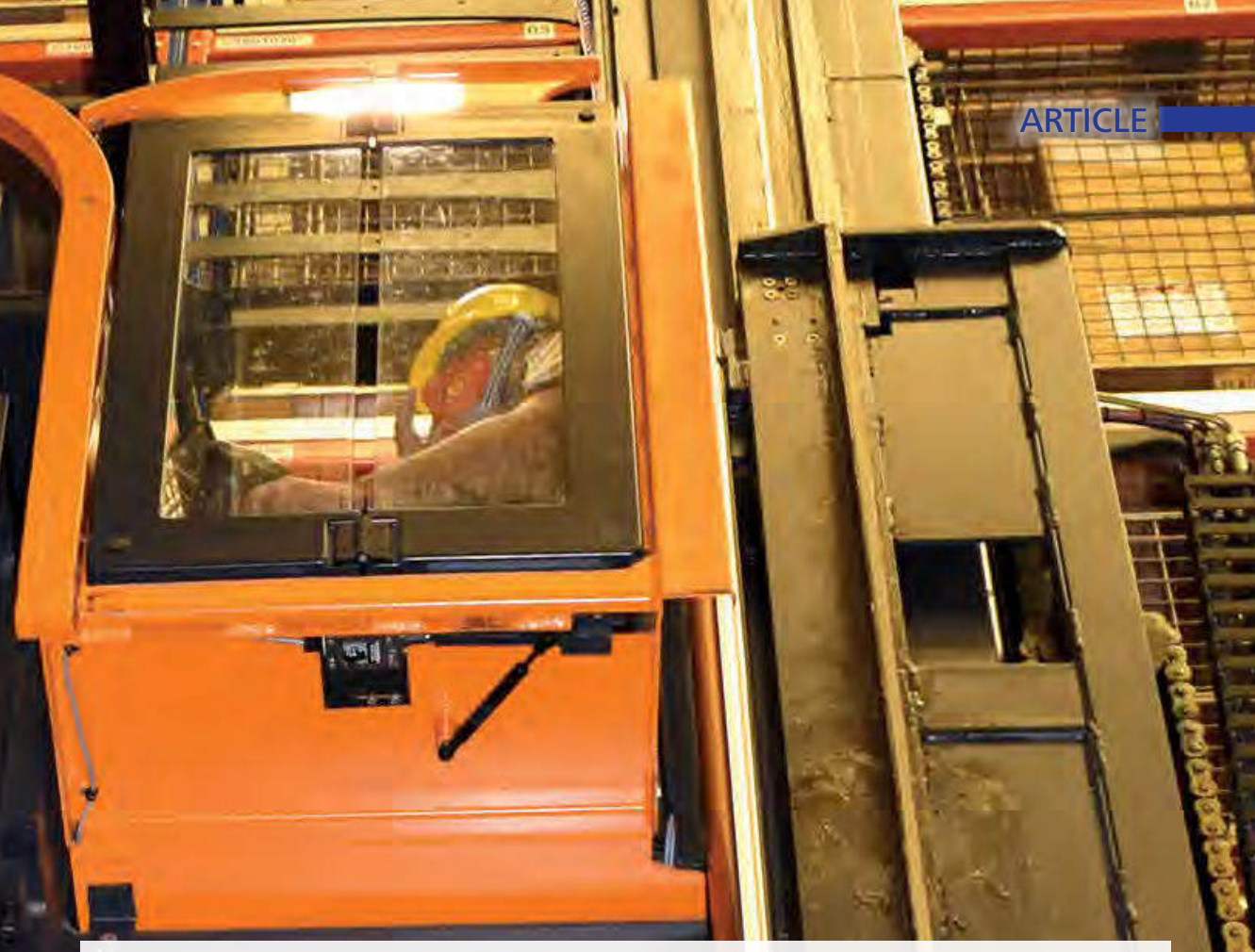
8 Supply Depot is part of Air Force Supply Centre (AFSC), providing direct material support in the RSAF. The unit is an integral part of a responsive and agile supply chain system that provides 24/7 supply support for the warehousing and distribution of RSAF weapon systems and materials for local air bases, overseas exercises, and detachments. The Supply Depot comprises both active military and DXOs, supported by Third Party Logistics (3PL) providers. We manage warehousing, distribution, and disposal activities, while at the same time ensuring high reliability, availability, and maintainability of spares.

Inherently Risky Work Environment

As we go about accomplishing our tasks and achieving the mission, it is tempting to be lulled into complacency, thinking that everything is in place. However, it is important to recognise that zero accidents does not necessarily equate to a safe work environment. While the job nature and ground operations within the Supply Depot may differ from the flying squadrons or Aircraft Generation maintenance flights, hazards do exist. It will be a mistake to think that the work environment is benign in nature.

On a typical day in the Supply Depot, one can imagine the supply chain operations involving material movement in the warehouses. The warehouse contains a flurry of activities with multiple transactions taking place to ensure the right spares and quantity are retrieved or stored. Industrial machinery such as the Automated Storage and Retrieval System (ASRS), Very Narrow Aisle (VNA) systems, and Mobile Racks are utilised to manage the large number of materials to store and retrieve them in an efficient and expeditious manner. Such machinery is common in the supply chain industry and may pose dangers to warehouse personnel such as getting caught in moving parts or being struck by falling objects (that were improperly stored or secured). Improper stacking of material and storage of materials on shelves can also result in unintended slip and trip hazards for personnel. Within and around the warehouse, the Forklifts and Pallet Jacks are critical pieces of equipment for the loading and unloading of material. When operated incorrectly, these can cause serious injuries to operators, nearby personnel, or damage to property. Apart from using machines, personnel may also engage in manual lifting or handling of material. Failure to utilise personal protective equipment (PPE) or improper procedures and lifting techniques can result in physical injuries or musculoskeletal disorders, especially when performed with awkward postures, repetitive motions, or overexertion.

The storage facilities in the Supply Depot store all types of aviation spares and materials. These may include materials (e.g. Petroleum, Oil, and Lubricants (POL), or Liquefied Gas Cylinders) which may be hazardous to personnel health and the environment if not stored or handled properly with the required Personal Protection Equipment (PPE). Such materials should also be handled with care to avoid endangering the environment and personnel during disposal.



Apart from warehousing operations, Supply Depot personnel utilise commercial vehicles (e.g. box trucks, pickups, and minivans) to make deliveries either within the air base or to other locations that may require transit on public roads. These commercial vehicles are subjected to the same rules and regulations when driving in base or out base. Drivers must be focused on driving and be on the lookout for hazards such as wildlife that encroach onto their driving path, road obstacles, and other errant road users. Other hazards include less than ideal road conditions with changing weather conditions that result in wet roads. Personnel will also have to be mindful when the vehicles are laden with cargo, and to observe the maximum height limits and turning radius of their vehicles when entering the bases or manoeuvring in tight corners or spaces. The RSAF has seen a fair share of vehicular incidents and this is a persistent watch area for all drivers.

When we look across similar industries in the commercial sector (e.g. Manufacturing, Transportation & Storage), we see similar hazards based on statistics provided by the Ministry of Manpower (MOM) and the Workplace Safety and Health (WSH) Council.[1] In 1H 2021, major and minor injuries were mostly caused by slips, trips and falls, with a total of 1,866 in the period. The second most common cause of major and minor injuries was related to machinery, with 1,001 cases in the first half of 2020. Other causes include being Struck by Moving Objects, Struck by Falling Objects, Fall from Height, Vehicular Incidents, and Overexertion/Strenuous Movement. In terms of occupational diseases, the top two diseases were work-related musculoskeletal disorder and noise-induced deafness, accounting for about 7 in 10 cases. These identified causes are relevant to the Supply Depot and can result in fatal, major, or minor injuries to our personnel if we are complacent.

1 Ministry of Manpower (2021, October). Workplace Safety and Health Report (Jan-Jun 2021). https://www.mom.gov.sg/-/media/mom/documents/safety-health/reports-stats/wsh-national-statistics/wsh-national-stats-2021.pdf

Engaging Safety Head-on

As mentioned earlier in the article, having zero accidents does not necessarily equate to a safe work environment. One must understand that zero accidents or incidents, or any improvement in such performance indicators is a lagging indicator. They are the outcome or result and may not necessarily reflect the process to achieve them. Zero accidents/ incidents can be achieved through exceptional performance or by chance. It can also be a result of creative reporting or lack thereof. It is thus important to develop and drive the notion of safety from the top to the very last man on the ground, and these are done in 8 Supply Depot through the various approaches:

Unit Commitment to Safety. Every start of the work year, the unit and 3PL management reaffirm our commitment to safety by signing the unit Safety Pledge together with all other personnel within the Supply Depot and 3PL. The safety pledge is a written statement of the unit's commitment to protect all personnel and a reminder of the AFSC Safety Philosophy. By signing the Safety Pledge, all personnel pledge their commitment to keeping each other safe. It also serves as a reminder that everyone plays a part in a safe work environment and ensures that we continue to achieve ***Mission Success, Safety Always***.

Proactive Approach to Safety. Safety sharing on internal and external incidents are conducted on a regular basis through Start of Day Briefing, RSAF Safety Day, or email. This information may come from various sources, including Safety Alert Messages by AFI, Quality and Safety Notices from QAB, Safety Information System (SIS) II, and safety meetings. Case studies are also used occasionally to help personnel better understand and internalise the lessons learnt.

Promoting a "Dare-to-Care" Culture. In the unit, everyone has a part to play in enhancing safety at the workplace. This message is driven across consistently from the management down to the last personnel on the ground. Being mindful of safety and adhering to safety rules is second nature to everyone. All personnel are also expected to be champions of safety in their work areas.

Ground supervisors are empowered to call for safety time-outs when they observe any unsafe behaviour. They are encouraged to be assertive and break the chain of safety breaches when required as sometimes a verbal warning may not be sufficient in the face of oncoming danger. With reference to the Swiss Cheese Model[2], a timely intervention will break the chain of events and aligning of the "cheese holes" before the situation deteriorates into an accident. Supervisors must take a proactive approach to safety management and set the right example for their personnel to follow.

Unit personnel are also encouraged to look out for each other in the course of work and correct any unsafe work behaviours. In the spirit of open reporting, personnel are to highlight both safe and unsafe acts in the workplace. These behaviours are recorded in the Behavioural Based Safety (BBS) observations by the Unit Safety Warriors and would be discussed during the RSAF Safety Day and Monthly Safety meetings.

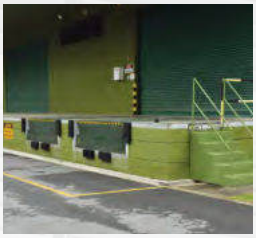
Active Risk Management. As part of the enhancements to the RSAF risk assessment process[3], the unit is transiting from the HIRA to the revised Safety Risk Assessment (SRA) process. The revised SRA was a result of the convergence of the TSA and HIRA, facilitating the unit to assess risks more effectively in an intuitive manner and ensuring a common standard[4] to risk assessment in the RSAF. Moreover, the change to utilise the SRA document would allow us to better identify hazards and risks at our workplace utilising the 5M process, and develop the necessary control measures to prevent them. As part of the transition, all safety appointment holders have been educated and trained in the enhanced risk assessment process, and together with management, the team will drive and ensure a smooth transition to the SRA.

Given the wide range of activities within the Supply Depot, it is important to identify safety and health hazards associated with any work activity, assessing the risk levels involved, and taking the appropriate measures to control and

2 Skybrary (2016, May). James Reason HF Model. https://www.skybrary.aero/index.php/James_Reason_HF_Model
3 Existing risk assessment processes in the RSAF include Task Safety Analysis, Hazard Identification and Risk Assessment, and Risk Assessment Matrix.
4 Generally, TSA is used for Ops and training exercises while the HIRA is used for logistics and admin activities.

reduce these risks. The process also includes the control, monitoring, and communication of these risks. At the unit, risks and hazards are identified and the associated safety risk assessment and mitigation measures are documented in the SRA document. Any newly identified hazards (either through open reporting or SIS II) will be included and updated to all personnel. This proactive approach ensures safety issues are identified and tackled early, with the required measures taken to mitigate or eliminate them, ensuring a safer work environment. Periodic reviews of the risk management processes, Standard Operating Procedures and orders are also conducted to ensure that safety-related issues are addressed promptly. Management must be cognisant and ensure that personnel on the ground adhere to the process, through monitoring, supervision, and walking the ground.

Risk Minimisation Efforts are generated from the ground-up. It is believed that the personnel on the ground are most familiar with his or her work environment and will want to make it a safer one to work in. Some of the notable ground-up initiatives that 8 Supply Depot have done include (1) enhancing the safety around the area of the warehouse dock leveller[5] through the installation of removable physical barriers and demarcation of caution areas, and (2) designing and placing graphic placards indicating individual vehicle heights within each delivery vehicle to remind the drivers on height limits and restrictions.



Before

After

Staying Safe and COVID-19 Resilient

The last two years were exceptional. The COVID-19 pandemic disrupted lives and aspects of our work processes. Faced with added Safe Distancing Measures and other guidelines to keep our personnel safe, we had to adapt and innovate to continue operating in a safe and effective manner. With the implementation of cohorting and shift work, personnel may find themselves becoming overworked or experiencing "COVID fatigue". If not carefully managed, these could easily lead to accidents or incidents. To address this, supervisors walk the ground on a regular basis

5 Mechanical system to compensate for the differences in height between various vehicles and floors.

to keep in touch with the ground and to identify any potential areas of concern. Flexi-work arrangements are also available to accommodate the unique circumstances or situations relating to COVID-19 our personnel may find themselves in. This allows our tasks to continue to be accomplished successfully, while minimising the disruption to our personnel's lives.

Conclusion

While the nation battles COVID-19, 8 Supply Depot continues to accomplish the RSAF's missions in a safe and effective manner. As the operational tempo increases with the resumption of normal activities and deployments, we must continue to maintain safe ground operations by guarding against complacency, maintaining strong fundamentals, and continuing a strong safety culture at all levels. We engage safety head-on, with (1) a strong unit commitment, (2) a proactive approach, (3) a "Dare-to-Care'' Culture, and (4) active risk management. Safety is an individual, team and command responsibility. Everyone must do their part to be mindful, adhere to regulations, and look out for one another. Only then can we continue to have safe ground operations to support the RSAF in achieving Mission Success!

ABOUT THE AUTHOR

ME5 Alvin Chong is the Commanding Officer of 8 Supply Depot, Air Force Supply Centre. Prior to this appointment, he held various command and staff appointments in the RSAF. These include Chief Instructor in Advanced Air Force Engineer School, DyOC Quality Assurance Centre, and Staff Officer in Air Engineering and Logistics Department.

Abort, Abort, Abort!

MSG Tan Yew Jinn
Loadmaster
122 SQN

What makes a 122 SQN Condor truly exceptional? Could it be the versatility of the C-130 aircraft that allows us to conduct a wide spectrum of operations? Or being always ready to execute missions tasked to us safely and successfully?

In my opinion, what makes us truly exceptional is a combination of factors – our ability to conduct a wide spectrum of operations safely and successfully, being ever dependable to deliver mission success when required, all while operating seamlessly as one, even though we are a multi-crew team.

I started my career in the RSAF as a Loadmaster in 122 SQN, after ten years of service I left the RSAF in pursuit of greener pastures. Don't get me wrong, I love flying! The adrenaline rush, complexity of missions and sweating with my brothers in arms is something that you do not get to experience in any other career paths. However, I told myself I had to experience the "outside" world to live without regrets.

I went on to pursue a career in finance for three years. Though I experienced a sense of achievement after getting an award in my first year on the job, I felt that there was something missing. It was only during reservist when I truly realised that I really missed the camaraderie in the squadron. While the mission was a routine tasking for our unit, there was loads of planning and coordination in the background to make the mission a success. I felt completely comfortable back at home even though I was only back for reservist. Three years on, I decided to reach out to the Loadmaster leader and Commanding Officer of 122 SQN to broach the possibility of re-joining the RSAF and I subsequently returned to active service in Jan 2021.

During the early days of my career in the RSAF, my instructors have always emphasised the need to have strong fundamentals. Having a strong foundation allowed me to quickly adapt to active duty despite not having flown frequently in the past three years. Additionally, this gave me more capacity to take on additional responsibilities, such as the revalidation of my instructor qualification, and I was subsequently revalidated by my superior who had the utmost confidence in my knowledge and skills to be a Loadmaster instructor.

On 22 Feb 2021, I was the Loadmaster planned for a routine night training flight and the day started like any other day at work. As we were preparing for night operations, I proceeded to dim the lights in the cargo compartment. This action would allow my eyes to better adapt to the dark environment, giving me a better visual acuity of the external aircraft services like the flaps and landing gears.

After the preparation and checks were completed, our aircraft was ready for take-off. As the aircraft rolled down the runway, I noticed that the sound of the engine resonating in the cargo compartment was unusually loud. While still seated in the troop seat at the aft of the aircraft (Figure 1), I instinctively scanned the cargo compartment. It was during this time that I observed that the right-hand side emergency exit was dislodged. I immediately called for an abort take-off. Without any hesitation or questions, the crew expeditiously initiated the abort. This was what we were all trained to do – to honour any abort call by any crew member. Albeit not knowing the exact reason, they trusted my judgement in making the abort call.

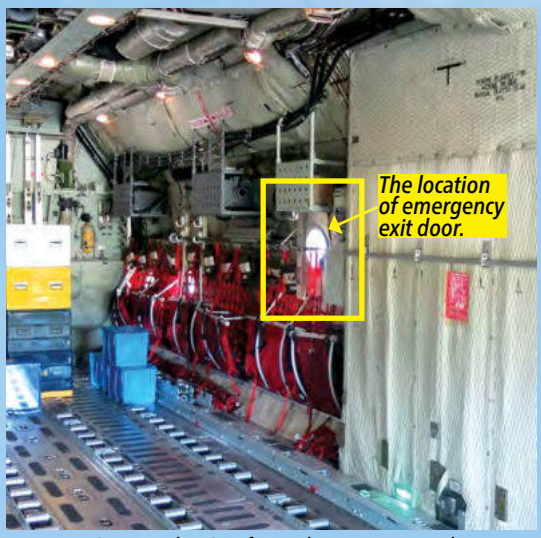


Figure 1: The view from where I was seated

After the aircraft came to a complete stop, I moved forward to assess the situation and found that the right-hand cargo compartment emergency exit had fallen inward. The first thought that came to my mind was the possibility that something might have fallen out of the aircraft and onto the runway as a foreign object debris (FOD). This could in turn affect the safety of the subsequent aircraft taking-off. I proceeded to account

Photo Credit: PIONEER

for all the equipment near the emergency exit while the crew informed the tower controller of the incident so that an FOD sweep would be conducted on the runway. It was later discovered in the technical investigations conducted after the incident that the dislodgement of the emergency exit door was likely caused by a defective 'over-centering' spring on the door release handle, and the vibration of the aircraft during take-off could have caused the door release handle to be lowered which subsequently unlatched the emergency exit door.

This entire experience reinforced my belief that as an aircrew, we need to be vigilant at all times. This was the first time such an incident had ever occurred in the RSAF C-130 aircraft and it taught me to never underestimate the task at hand, no matter how simple it may seem. As a Loadmaster instructor, I always constantly remind my juniors and trainees to anticipate all the what-if scenarios and maintain flight discipline regardless of the level of experience or seniority. Being vigilant, expecting the unexpected and maintaining flight discipline at all times is what has been ingrained in me since I was a young trainee. The training I received is the key difference in preventing something that may seemingly be minor at the start from manifesting into a hair-raising situation that could have dire consequences.

122 SQN operates in a multi-crew environment. What this means is that we need to be able to depend on each other to carry out our individual responsibilities and duties in order to achieve mission success. Every crew member in the C-130 plays an equally important role in ensuring the safety of the crew and the aircraft. This is also why the RSAF places such a strong emphasis on Crew Resource Management (CRM). Being in a multi-crew environment is a double-edged sword. If the crew works well together and checks "each other's six", great synergy can be achieved and you will get a high performance team. Conversely, if there is a breakdown in CRM, having poor comms discipline, or if the crew starts assuming that someone else has that blind spot covered, then the consequences would be less than desirable

or even fatal. To ensure that we continually remain a high performance unit, 122 SQN demands a very high standard from ourselves and also from one another as we are only as strong as the weakest link in our team.

Last but not least, adaptability is a crucial trait for a Condor. Due to the nature of our missions, we often find ourselves in situations that are not detailed in any Standard Operating Procedure or orders. Being adaptable and knowing where the boundaries are enable us to manage the risk accordingly and handle each situation safely. While established procedures should be the first layer of the safety net, the crew's proficiency and knowledge of aircraft limitations, translates to the ability to adapt to a dynamic situation which serves as the last line of defence. It is therefore important to have strong type fundamentals, train realistically, and also continually push our boundaries safely during training. All these factors are like pieces of a puzzle which fall into place to allow us to achieve mission success safely.

ABOUT THE AUTHOR

MSG Tan Yew Jinn is a Loadmaster of 122 SQN and an Aircrew Specialist (ACS) by Vocation. He is a qualified Instructor and has participated in numerous Humanitarian Assistance and Disaster Relief (HADR) and Ops missions. He is also a volunteering ambassador for the Smoking Cessation Outreach (SCORE) programme.

Photo Credit: PIONEER

Chief of Air Force Safety Award

Chief of Air Force Safety Award recipients CPT Chia (left) and MAJ Lee (right) from 207 SQN

On 7 Feb 2022, MAJ Lee Yong Gin Adrian and CPT Chia Yi Cai Daren from 207 SQN were on duty as the Tower Executive Officer and Tower Controller respectively at Paya Lebar Air Base (PLAB). During this time, two F-15SGs were scheduled for departure from PLAB to the South China Seas and the departure clearance was issued by CPT Chia following clearance received from the Singapore Approach Controller.

As the F-15SGs were taking off, CPT Chia received an unusual call from the Singapore Approach Controller informing him on a concurrent departure of a civilian airliner from Singapore Changi Airport. As he was receiving the call, CPT Chia and MAJ Lee both spotted the civilian airliner through their monitoring of the radar and instantly detected the potential confliction between the F-15SGs and civilian airliner.

CPT Chia immediately instructed the two F-15SGs to remain within PLAB circuit, while MAJ Lee clarified the position and departure profile of the civilian airliner with the Singapore Air Traffic Control Centre Watch Manager. MAJ Lee subsequently told the Watch Manager to freeze further departures from Singapore Changi Airport to allow CPT Chia to coordinate and deconflict the F-15SGs' departure with other air traffic.

MAJ Lee and CPT Chia's timely and decisive actions prevented a loss of separation, and averted a potential mishap between our F-15SGs and the civilian airliner. With the flight path of the F-15SGs and civilian airliner intersecting one another, a potential air proximity or mid-air collision was highly probable.

The timely and instinctive responses displayed by both servicemen were commendable. In recognition of the strong safety instincts and exemplary professionalism in this time-critical incident, MAJ Lee and CPT Chia were both awarded the Chief of Air Force Safety Award.

Chief of Air Force Safety Award

Chief of Air Force Safety Award recipient MAJ Sng from 150 SQN

Chief of Air Force Safety Award recipient CPT Lee from 150 SQN

On 24 Feb 2022, MAJ Sng Jun John and CPT Lee Ping Liang from 150 SQN were flying in a M-346 aircraft for a Final Handling Test sortie when the right hydraulic low level caution light was illuminated in flight. A MAYDAY call was declared and checklist actions were carried out by both aircrew.

As part of the checklist actions, the aircrew lowered the landing gears via normal extension. However, the "right hydraulic low pressure" caution light and other caution lights associated with the right-hand hydraulic system were illuminated. In addition, an unsafe nose landing gear indication was also observed and this was later confirmed by a chase aircraft who provided a visual inspection.

After further checklist actions taken to lower the landing gear proved unsuccessful, the aircrew adjusted their fuel to reduce their aircraft landing weight and landed the aircraft, bringing it to a complete stop without suffering any injuries and with minimal damage to the aircraft. The aircrew then immediately carried out an emergency ground egress and evacuated the aircraft safely.

MAJ Sng and CPT Lee's strong flying fundamentals had allowed them to remain calm and collected in dealing with the compounded emergencies. They maintained their composure throughout the emergency and landed the aircraft without its nose landing gear fully extended and walked away unscathed and with the aircraft suffering minimal damage.

In recognition of their strong fundamentals and exemplary professionalism, MAJ Sng and CPT Lee were both awarded the Chief of Air Force Safety Award.

Outstanding Safety Award

From left to right: ME2 Khew, ME3 Koh, ME2 Chua, ME2 Tio

On 28 Sep 2021, ME3 Koh Hup Heng, ME2 Tio Jianwei Darius, ME2 Canlas Paolo Roberto Chua and ME2 Khew Jin Sheng Glen from Peace Carvin V Detachment were scheduled to perform an engine installation task together as a team on the F-15SG in the maintenance hangar. In accordance with pre-use checks on the 4000 engine trailer, the team ensured that the safety pins were inspected for good condition and proper installation. A pre-operation brief was also conducted to highlight the safety watch areas of the task and remind the team to remain mindful and vigilant.

To install the engine on the F-15SG airframe, the team raised the engine to a substantial height of 2 metres on the 4000 engine trailer. As the team was rolling the engine into the aircraft, ME3 Koh who was the team supervisor positioned at the aft of the engine trailer, spotted that the aft of the engine trailer was starting to droop. He immediately directed the team to stop their tasks, and shouted for the two AFEs positioned beside the trailer to release their grips and move away, whilst he quickly repositioned from behind the trailer. The 1.8 ton engine slid backwards and was only stopped by two safety pins attached to the aft of the engine trailer rails. After ascertaining that there were no personnel injured in his team, and no damage to the engine, he then led his team to lower and disconnect the engine trailer safely.

Peace Carvin V was fortunate that the two safety pins, which were significantly bent after the incident, managed to stop the engine. This was a direct result of the team's diligence during the pre-use checks. In addition, the pre-operation brief adequately highlighted the safety watch areas and reminded all personnel to be vigilant during operations. During this incident, the team exemplified the RSAF's emphasis on Mindfulness and vigilance during routine tasks. For their mindful attention and vigilance to the task at hand and quick reaction in handling the situation to prevent damage to the engine and potential injuries to personnel, the team were awarded the Outstanding Safety Award.

Outstanding Safety Award

ME3 Lim (left) receiving the award from COL Koh Ee Wen (right)

On 28 Dec 2021, ME3 Lim Beng Hwee from 113 SQN, who was a Safety officer for the IPPT observed that one of the servicemen had declared that he had a history of heat injury. In response, ME3 Lim paid special attention to the serviceman during the IPPT and reminded the serviceman to inform him if he was feeling uncomfortable at any time. Separately, ME3 Lim requested the medic to closely monitor the serviceman throughout the IPPT session.

After the completion of the IPPT run, ME3 Lim checked on the serviceman and observed that the serviceman exhibited signs of discomfort. The serviceman highlighted that he was having chest pains, felt light-headed, nausea and cramps on his right leg. ME3 Lim immediately instructed the medic to attend to the serviceman and subsequently evacuated him to Paya Lebar Air Base Medical Centre for further evaluation. The Medical Officer diagnosed the serviceman with a typical chest pain and evacuated him to Changi General Hospital for further tests. The results were normal, and the serviceman was discharged after two days of medical leave.

ME3 Lim had displayed a high level of situation awareness and professionalism in handling the situation. His prompt and precise actions, as well as the attention shown to the serviceman, had ensured that timely medical attention was given to the serviceman and prevented the situation from worsening. For his strong professionalism and prompt and precise actions in handling the situation and preventing it from becoming dire, ME3 Lim was awarded the Outstanding Safety Award.

COL Teo Soo Yeow (left) presenting the award to CPT Jee (right)

On 27 Sep 2021, CPT Jee Kam Chin Dustin from 126 SQN was performing a ground run on a Super Puma in Sembawang Air Base. During the conduct of the ground run, CPT Jee observed that there was ongoing repainting works at a nearby dispersal, which included a scissors lift and cones protruding out ofthe dispersal.

While CPT Jee was monitoring the radios, he heard that another aircraft had received a weather recall and was to land and shut down at the same dispersal where repainting works were taking place. Sensing that something was amiss, he immediately informed the aircrew of the painting works. The aircraft subsequently repositioned to land and shut down at another dispersal uneventfully.

Investigations subsequently revealed that the repainting works were unauthorised and CPT Jee's high situation awareness of his surroundings and mindfulness of the potential safety impact helped averted a near miss. For his strong contributions to safety in preventing the near miss, CPT Jee was awarded the Outstanding Safety Award.

Outstanding Safety Award

COL Teo Soo Yeow (left) presenting the award to MWO Tang (right)

COL Teo Soo Yeow (left) presenting the award to 3SG Rodrigues (right)

On 29 Sep 2021, MWO Tang Heen Keong Bernard and 3SG Rachel Rodrigues from 126 SQN were the Air Crew Specialists on-board a Super Puma for a night winch sortie at Sembawang Air Base. MWO Tang was the winch operator, and 3SG Rodrigues was the winchman proceeding down the line for the pick-up of a simulated casualty.

Upon the completion of the Safety Checks, 3SG Rodrigues positioned herself on the aircraft step. However, on the aircraft step, she felt that her body weight was unevenly distributed and the Bosun Seat harness was loose. Sensing that something was amiss, she paused from releasing the aircraft strut bar for the descent. Although 3SG Rodrigues was without her night vision goggles for the descent, she maintained her composure and mindfulness to hold onto the aircraft strut bar and visually signalled to her winch operator.

Sensing that something was wrong, MWO Tang immediately pulled her back on-board and terminated the winch. He discovered that the Winchman Bosun Seat snap hook had come unlatched. As the crew was unable to conclusively ascertain how the snap hook came unlatched, he called for a Knock-it-Off, and the sortie was terminated.

MWO Tang handled the incident well in the challenging dark night environment, and expeditiously pulled 3SG Rodrigues back on-board to ensure her safety. His decision to call for a Knock-it-Off was precise and professional, and his safety instincts prevented a hazardous situation which could have resulted 3SG Rodrigues dangling precariously from the cable.

3SG Rodrigues was mindful and vigilant to detect the anomalies in the Bosun Seat and handled the incident well in a challenging dark night environment, despite her relative inexperience as a junior winchman.

Subsequent investigations revealed a design flaw in the snap hook which could potentially be unlatched with a single motion under certain conditions. As a result, the Bosun Seat was enhanced with an additional karabiner to ensure the safety of all winchmen.

For MWO Tang and 3SG Rodrigues' strong safety instincts and professionalism in preventing a potentially dangerous situation and uncovering a design flaw in the Bosun Seat snap hook, they were both awarded the Outstanding Safety Award.

Safety Exchanges

As part of the RSAF's efforts to forge stronger safety ties with established Air Forces, AFI conducted the 18th TNI AU-RSAF Safety Exchange on 7 Feb 2022 and the RSAF-French Air and Space Force Safety Exchange on 11 Feb 2022 respectively. These safety exchanges allowed safety personnel from the respective air forces to interact closely with one another and cross-share safety-related matters and issues.

18th TNI AU-RSAF Safety Exchange 7 Feb 2022

RSAF-FASF Safety Exchange 11 Feb 2022

RSAF Safety Warriors' Course

The RSAF Safety Warriors' Course was conducted from 9 to 18 Feb 2022 via Video Tele-conferencing with 47 Warrant Officers, Specialists and Military Experts successfully completing the course. The course aims to equip the participants with knowledge of the current RSAF safety programmes and initiatives, human factor conditions affecting safety, and workplace safety and health knowledge for carrying out their safety appointment effectively in their respective units.

Human Factors in Aviation Safety Course

AFI successfully coordinated and managed the Local Human Factors in Aviation Safety Course from 22 to 25 Feb 2022. The specially tailored course was conducted by the lecturer from Cydel Pte Ltd via Video Tele-conferencing.

26 RSAF personnel and 1 TNI-AU officer attended the course. Key topics such as Human Factors concepts, models and case studies were shared and discussed over the 4-day course.

Signing of RSAF Safety Policy

The RSAF Safety Policy was signed by CAF and the Command Commanders on 31 Mar 2022. The policy is a written statement of RSAF's commitment to protect our airmen and airwomen and a reminder of our RSAF Safety Philosophy. By signing the RSAF Safety Policy, our Air Force Leadership pledge their commitment to keeping our people safe. It is also a reminder that all of us play a part in keeping each other safe and ensuring that our missions succeed with safety in mind.

RSAF Annual Safety Conference 2022

The RSAF Annual Safety Conference 2022 was held at the Air Force Training Command Auditorium on 31 Mar 2022 to review the RSAF's safety achievements for WY21/22. The presentation from CAF, HAFI, HAO, HAEL and guest speaker, Mr Sarbjit Singh, the President of Defence Aerospace, ST Engineering, provided participants with a clear understanding of the RSAF's safety focus for the new work year. Lastly, the conference concluded with a safety award presentation.

***CAF** MG Kelvin Khong*

***HAFI** COL Linus Tan*

***HAO** BG Chan Ching Hao*

***HAEL** ME8 Timothy Yap*

RSAF COs' Conference 2022

The RSAF COs' Conference 2022 was held at Temasek Club on 29 and 30 Mar 2022. The conference, organised by AFI, provided a central platform for HQ RSAF to share with all COs and Dy COs on the latest policies, best practices across the units, and leadership sharing from past COs.

It also allowed the COs and Dy COs to cross-share ideas and experiences amongst themselves and provided them the opportunity to engage the senior RSAF management on the strategic direction for the work year ahead.

RSAF Annual Safety Conference 2022 Award Winners for WY21/22

Accident-Free Flying Years

Unit	Accident-Free Flying Years
121 SQN	49
STANDARDS SQN	46
122 SQN	45
149 SQN	35
124 SQN	35
AIR GRADING CENTRE	32
150 SQN	32
143 SQN	32
140 SQN	30
145 SQN	29
127 SQN	26
142 SQN	25
112 SQN	22
PEACE VANGUARD	18
126 SQN	18
119 SQN	17
125 SQN DETACHMENT	16
128 SQN	16
130 SQN	15
UAV TRAINING SCHOOL	15
116 SQN	15
111 SQN	15
125 SQN	13
PEACE CARVIN V	12
123 SQN	12
PEACE CARVIN II	11
120 SQN	11
OAKEY DETACHMENT	4

Outstanding Unit Safety Officers

Command/ Formation	Rank/Name	Unit
ADOC	CPT Lim Chit Chuan Lester	113 SQN
ACC	MAJ Lee Si Wei	PEACE CARVIN V
PC	CPT Boh Jin Hua Samuel	126 SQN
APGC	ME4 Loh Kim Peng Raymond	708 SQN
UC	CPT Swee Chuan Lip Alvis	119 SQN
AFTC	CPT Zhuo Ruisheng	150 SQN
HQ RSAF	ME5 Liang Zhichao	HQ AFSC
AWC	MAJ Xie Hongzhe Edgar	AWC/TEC

Outstanding Unit Safety Warriors

Command/ Formation	Rank/Name	Unit
ADOC	ME2 Aaron Philip	AOCG
ACC	ME3 Munjeet Singh	140 SQN
PC	ME1 Koh Rong Hui	6DA
APGC	3WO Kavitha	705 SQN
UC	ME1 Ang Jowen	801 SQN
AFTC	ME3 Lim Wee Han	AETI/AE SCHOOL
HQ RSAF	ME2 Ng Mei Li Joreen	AFSC/7SD
AWC	ME3 Ng Siew Ming Gaius	AWC/TEC

Zero Accident in Motor Transport

Command
ACC
AFTC

Good Achievement in Motor Transport

Command / Air Base
APGC TAB
APGC PLAB
ADOC

4 Pics 1 Word

What word can you derive from the 4 pics?

1

2

3

4

H	R	F	A	D	N	U
L	G	S	G	T	I	E

5

6

7

8

D	C	N	G	C	L	N
T	O	C	I	A	U	E

We welcome your feedback,contributions of safety-related stories, cartoons, suggestions, experiences or concepts you could share. Email us at apb_pub@defence.gov.sg with your full name and contact number.

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1. "Campfire" by "Pierce Hanley""
2. "Match" By "Scott McGillvray"
3. "Lighter" by "Nicolicreer"
4. "Desert" by "翊明窦"
5. "Argentine Car Accident" by "Andrew Milligan Sumo".
6. "[accident]" by "Rudy Novira"
7. "Crash" by "Ludivine Trupiano"
8. "Waterfall" by "bialobrody"

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Crossword

WIN!
S$30
WORTH OF VOUCHERS!

Email your answers with your Rank/Name, Unit, Contact number and last 4 digits of your NRIC to AFI (ME3 Su Xinyi) by 8 Jul 22. All correct entries will be balloted and 3 winners will receive S$30 worth of NTUC FairPrice vouchers each.

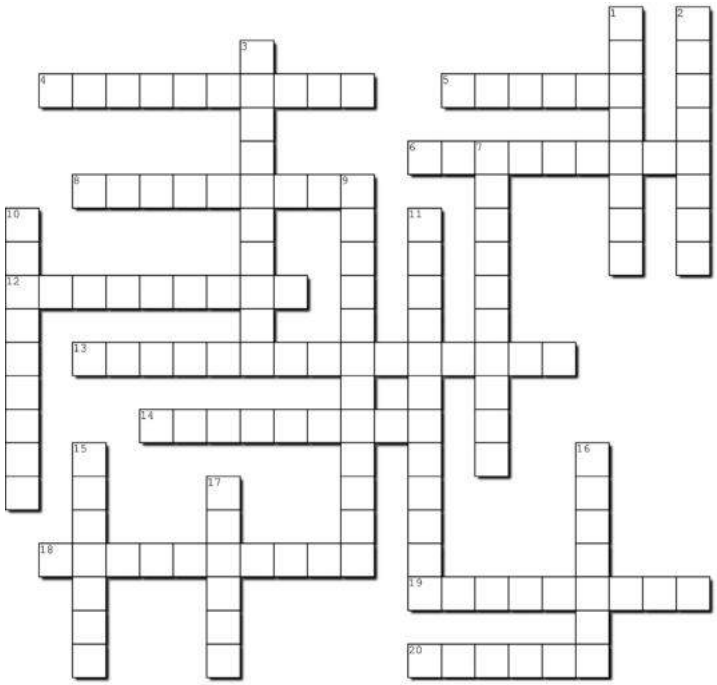
The crossword puzzle is open to all SAF personnel except personnel from AFI and members of the FOCUS Editorial Board.

FOCUS 110 WINNERS

LCP Raphael Teoh,
HQ PC

ME2 Chew Jun Li Kenneth,
805 SQN

PTE Wu Jianhao,
AID/HQ RSAF



Across

4. The aircrew had to fight against complacency and the _____ of accelerating the training by...

5. All these factors are like pieces of a _____ which fall into place to allow us to achieve mission success safely

6. The COVID-19 pandemic _____ lives and aspects of our work processes.

8. Firstly, an exciting series of aerial display by renowned _____ teams...

12. It was a collective effort to ensure the safe _____ of the aerial display.

13. ,every aerial display is treated with the utmost _____ and care,

14. This _____ approach ensures safety issues are identified and tackled early

18. ,the team would come together to identify them and share _____ measures during the daily flight briefs

19. Dedicated _____ sessions were therefore planned to expose the pilots to the whole range of...

20. As we go about accomplishing our tasks and achieving the mission, it is tempting to be _____ into complacency

Down

1. The adrenaline rush, complexity of missions and _____ with my brothers in arms is something...

2. We adopted a _____ block approach in our training plan by first familiarising ourselves...

3. Since the very first display sequence that was developed on the drawing board, we had gone through many _____ before...

7. ,_____ our strength and resilience in the face of adversity...

9. ...battle with the mindset to perform well while not _____ safety.

10. Since aerial displays requires the pilots to push the aircraft to the of its _____ envelope

11. ,my instructors have always emphasised the need to have strong _____.

15. Amidst the stress and _____ of putting up a good show,

16. Safety is an individual, team and _____ responsibility.

17. During the initial demand for _____ to support the rehearsals and aerial display,

Answers to page 34: "Fire" and "Accident"

RSAF SAFETY Mission Success ALWAYS

RSAF Safety Poster Competition 2021 (1st Place) - CPL Liu Ruiyang Rayen