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On  
Staff Work  
MG NG CHEE KHERN



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# About the **Author**

MG Ng Chee Khern assumed his current appointment as Chief of Air Force on 24 Mar 06. A qualified F-16 and F-5 Fighter Pilot, he has served as Director of Joint Operations and Planning Directorate, Chief of Staff (Air Staff) and Commander of Tengah Air Base. MG Ng is a President's Scholar and SAF Overseas Scholar. He graduated with a Bachelor of Arts Degree in Philosophy, Politics and Economics, and a Master of Arts Degree from University of Oxford, U.K., and attained a Master in Public Administration from Harvard University, U.S.A. MG Ng has also attended the prestigious Air Command and Staff College in the U.S.A. For his significant contributions to Singapore and the SAF, MG Ng was awarded the Public Administration Medal (Gold)(Military) in 2005.

# On Staff Work

## INTRODUCTION

1. The RSAF has traditionally focused on training our people to be good operators. But not enough has been done to prepare our people for staff work. This is all the more peculiar given that staff colleges started off teaching staff work and only evolved into staff *and command* colleges later. We need to properly teach staff work. And we should start by being clear what a staff officer is. Two things I would like to highlight. First, although “staff officer” in the technical sense refers to the junior officers in HQ appointments, I use the term more generally to refer to anyone who performs a staff function to a higher authority. A Branch Head is a staff officer to the Department Head, a Department Head or a Commander is a staff officer to the Chief, and I am a staff officer to the Ministers, Permanent Secretaries and CDF. This makes all of us a staff officer.
2. Second, most of you have probably not read the official SAF definition of what being a “staff” officer means. The SAF Dictionary defines it as “an officer who is specifically ordered or detailed to assist the commander, studies the situation continually for anticipatory planning, recommends plans and orders on his own initiative or in response to directives, translates the commander’s decisions into orders and disseminates them thereof, and supervises their execution to ensure adherence and successful execution of the intentions and policies of the commander.” This definition is written more for the operational planning staff officer than the force planning, force structuring or operational development staff officer. But if we analyse it carefully, the essence for the different types of staff officers is all contained in it. First, a staff officer “studies the situation”; second, he “*recommends plans*”; and third, he “*translates the commander’s decisions... and supervises their execution to ensure adherence and successful execution...*”.

## “Studying The Situation” – The Contents of Staff Work

3. A senior government official in charge of the international affairs of the US Air Force told me that “Singapore is the most analytical nation I have ever known.” He meant it as a compliment, that before we make a decision, we dissect the issue from different angles and ensure that it is not only desirable but feasible. It is one of our real comparative advantages as a nation and as an airforce that we are thorough and systematic in analysing and making decisions. But it is not something we can take for granted. It is something that we have achieved because we have staff officers who form the collective thinkers and the brains of the organisation, and who are not just paper writers. So how do we ensure that we continue to “study the situation” in the best possible way?

### **1.1 Punching above your weight – Have ambition in your thoughts and plans**

4. First, it is important for staff officers to have ambitions, whether it is in giving options to your commanders in operational plans to fight a war or in force plans to develop the force structure. Singapore has been credited with being able to “punch above its weight”. This could easily be a cliché, but it should not be. We have to constantly seek and create opportunities to make a difference, to improve the organisation, or to better profile ourselves to increase the public’s confidence in us and our ability to deter potential aggressors.
5. Many staff officers feel they are unimportant digits in the organisation since they are low in the hierarchy. This cannot be further from the truth. The first-cut recommendations for many issues come from the staff, not always the commander. Even if the proposals are fine-tuned in the process, the core recommendations often persist. The proposals for the microstructures and the detailed estab distribution within the new Operational Commands came mainly from the staff officers of the Commands. The Public-Private Partnership model, which is a significant component of our training transformation, was adopted by the RSAF largely on the suggestion of staff officers in the Air Training Department. The Black Knights interstitials that most of you may have seen on

national television in the weeks leading up to National Day Parade 2008 was suggested by the staff of DiTV. These interstitials turned out to be very well received by the public. All of these ideas were ambitious and originated from the staff. If nothing, I believe it should be a great reward and satisfaction for a staff officer to know that your ideas were implemented and that you have personally played a part in shaping the Air Force for years to come.

6. Being ambitious applies to all levels of staff officers. When I recommended that we form a Black Knights Aerobatic Team in 2007, I had in mind that they would only perform in the inaugural Singapore Airshow 2008. However, the team manager Colonel Ho Foo Sing suggested that the team could also perform in the National Day Parade as it was the RSAF's 40<sup>th</sup> Anniversary. The Black Knights subsequently did that to the acclaim of the nation. It was an ambitious proposal by Colonel Ho which has done much to increase the RSAF's reputation with the public and their confidence in the professionalism and quality of the airforce. In 2007, I had also suggested that the RSAF organise a Global Air Power Conference to attract foreign Air Chiefs and senior officers to Singapore, so that their presence would serve to support the inaugural Singapore Airshow. It was an ambitious idea and we were not sure that we could pull it off convincingly. But in the end, 27 Air Chiefs attended our Global Air Power Conference. This significantly profiled the soft power of the RSAF, especially when the participants observed how well we planned and executed the Conference, the Airshow, and our Black Knights' performances.
7. One important prerequisite of being ambitious is that you must be truly convinced of your proposal. Uphold your integrity and don't put up proposals simply because you think it is what your bosses want. In all of the above examples, the people who surfaced the ideas did so after they had gone through the honest due process of evaluating whether the idea was sound and feasible. You must be convinced that yours is the right proposal for the organisation and not because you have second-guessed that it is what your bosses want.

## 1.2 Analysing the issue deeply

8. An ambitious idea must also be grounded in reality. The only way we can ensure that an ambitious plan is feasible is by thoroughly analysing the issue. Many staff officers make the mistake of just presenting facts, or just describing a situation rather than analysing it. You are expected to analyse the facts, say what you think about the issue, present solutions and explain the reasons for your recommendations. Begin your analysis by reading old papers on the same issue because they tell you the background, the past concerns and what aspects of the situation are different so that you can argue your case more convincingly. (But when you read the old papers, read the minutes of the forum to which the paper was tabled. Some recommendations may have been rejected, and even those recommendations approved as a whole could have been modified because some parts were disagreed with. You would only know all this from the minutes. This is why when submitting an old paper, always attach the minutes, because the paper alone does not in fact tell you the final decision made.)
  
9. Analyses can be done at different levels of depth. In a meeting I chaired in 2006, two Post-Implementation Review papers of contrasting quality were tabled on separate C4 systems. If you were asked what difference a new C4 system has made, it would not be enough to say that it has made our C2 infrastructure more robust. But that was exactly where the first paper stopped its analysis. The second paper was better. It explained that the C2 infrastructure was more robust because there were more redundancies, the control hierarchy was flatter, information was disseminated more quickly and decision-making became faster after the system was implemented. When we analyse something, we must be clear *what difference* it has brought with it. For those with children, it is akin to asking your children why they like chicken rice and they tell you “because it is nice”. That does not help one understand the issue more deeply. A better answer would surely be “because it is more fragrant than normal steamed rice”. Similarly, if one were asked why Shakespeare is a good writer, a barely satisfactory answer would be “because he is deep”. A

more meaningful reply that would provide a deeper understanding of the issue would be to say that “he reaches into the heart of human emotions, and he is able to express love and hate in very convincing ways”.

10. Let me illustrate further what I mean by analysing an issue deeply. When writing any paper, you must ask questions such as: is the situation unfolding according to plan? What are the ends to achieve and which are the means? Are we achieving the ends better or just the means? What is the hierarchy of issues, which are critical and which are secondary? If the situation is not happening according to plan, is it because the plan is inadequate or the execution has been poor? Is the execution hampered by factors within or beyond our control? Is what is being done sufficient or do we need to do more? Should we do more of the same or more of something else? These questions are not exhaustive but they illustrate how you should dissect and probe each answer further to achieve depth in your analyses. The point is not just to describe facts, but to analyse and assess them.

### **1.3 Distinguishing between first and second-order thinking – Ends and means; doing the right things and doing things right**

11. This distinction between the ends and the means is an important one and it leads me to another way to enhance the depth of analysis – to understand the difference between what I refer to as first- and second-order thinking. First-order thinking asks questions such as “*why* do I want to do something?”; second-order thinking asks questions such as “*how* do I do it ?” First-order questions use “*why*” as the operative word; second-order questions use “*how*” as the operative word. First-order thinking asks “are we doing the *right things*?”; second-order thinking asks “are we doing *things right*?” First-order thinking focuses on the ends; second-order thinking focuses on the *means*. First-order thinking tells you whether you *should* do something; second-order thinking tells you whether you *can* do it. First-order ideas lead to improvements of a transformational nature; second-order ideas lead to improvements of an incremental or evolutionary nature.

12. Staff officers tend to engage in second-order thinking and not enough in first-order thinking. A draft paper on the Post Implementation Review of the Participation Command last year described at great length what the Participation Command has done since it was inaugurated and what it intended to do in the following year. It struck me that the paper sounded like a Workplan paper rather than a Post Implementation Review. To the extent that it went beyond description, the paper assessed whether the Participation Command had improved our cross-domain integration with the Army. It noted that there was more frequent contact between different elements of the Army and the RSAF, and that air-land exercises were planned more collaboratively. But it did not sufficiently assess whether the Participation Command had in fact achieved the fundamental objective it was set up to do – to increase the effectiveness of the RSAF's contributions to land operations. More cross-domain integration between the Army and the RSAF should presumably lead to more effective air operations in the land campaign but this would be to mistake the means for the ends. It would be necessary to directly assess the ends too, that is, whether the Command had in fact enhanced the RSAF's ability to make a difference to the Army's effectiveness in the land campaign.
  
13. The tendency to think at the second-level and not enough at the first is evident not only in staff papers but also in other aspects of our daily work. A pilot who was interviewed to be a Commanding Officer in the Air Combat Command said that he would build up his unit's air-land and air-sea capabilities, but even after some prompting, he did not see the need to keep the Participation Command informed. It was only when asked who in the RSAF was in charge of participation issues that he realised he needed to report to the Participation Command. Second-order thinking is easier because the parameters are clearer and in most instances clearly laid out. First-order thinking is difficult because it takes greater leaps of imagination to arrive at feasible solutions. It also requires moral courage to challenge the status quo, the deep-seated assumptions and the established ways of doing things.

14. The relative weight placed on first- and second-order questions depends on the issue at hand. On the one hand, first-order thinking is more relevant higher in the organisational hierarchy, for more policy-oriented papers, and during uncertain or developmental times. First-order thinking is particularly crucial in charting new directions and path-breaking developments. Hence, in 2006, it was important for the RSAF to ask the first-order question of whether we were doing the right things a few years after we entered the new millennium. If at that time the RSAF leadership had stopped at asking the second-order question of whether we were doing things right, the RSAF would have continued to get better at air defence and air superiority, but there would not be a fundamental breakthrough in the way we contribute to the SAF. It was only when we asked the first-order question of whether we were doing the right things that it became obvious that the airforce could do a lot more to shape surface and information operations with the new technologies available. Similarly, it is only when we think at the first-order of why the RSAF exists that we will understand our responsibilities in building commitment to defence at the national level, and appreciate the importance of our roles in national events such as the National Day Parade. Only then will we understand that our participation in the National Day Parade is not distracting us from our “primary” duty, because one of our primary duties broadly understood is to ensure that our people remain confident in us, and our adversaries are deterred by us, so that we need not even go to war in the first place.
  
15. On the other hand, second-order thinking is usually more pertinent to implementation issues and during periods of consolidation. In the mid 1990s to the early 2000s, when the RSAF took delivery of many new platforms such as the Chinooks, F16D+s, KC-135s and the Apaches, it was important to concentrate on the second-order question of efficiency and whether we were doing things right. Similarly, today, 3 years after we started our transformation, it has become necessary for us to re-focus again on making sure we are doing things right.

16. However, even second-order implementation papers should be informed by first-order thinking. Before you can address the details of “how”, you must be clear about the “why” so that the implementation details are aligned with the ends and consistent with the assumptions. This is nothing but saying in another way that before detailed execution, you should understand the “commander’s intent”. Before 1998, the weekly RSAF leadership meetings involved only the HQ RSAF Department Heads and not the Commanders. This was because a school of thought preferred Commanders to be spending as much time on the ground as possible so that they are seen to be commanding and close to the pulse of the ground. But there are also great advantages to having Commanders attend these weekly meetings, especially during a period of great change and flux, such as how we are presently undertaking a fundamental organisational restructuring. It allows our Commanders, as they set up their new Commands and do new things, to understand the deeper rationale of what they are attempting to do. In big countries where geographical distances make it impossible to tie execution on the ground closely to policy-making at the centre or the HQ, the OODA loop would not be as quick and tight. The fact that our policy-making at the HQ level and ground execution by our commanders can be much tighter due to our being a small country is thus a strength we must exploit.
17. I believe in sharing information widely because it helps in first-order thinking. I have done this through a series of CAF’s messages, informal emails, and big and small group dialogue sessions. The information may not be directly or immediately relevant, but building up a good feel of what is happening around your area of work is crucial in understanding the bigger picture to facilitate first-order thinking. The American system of education is broad-based and concentrates on breadth rather than depth, and on a spattering of knowledge across distantly related subjects rather than drilling in on a particular topic. In contrast, the British system of education specialises deeply and focuses less on the lateral connections across disciplines. I would venture that the American system is more conducive to first-order thinking, whereas the British

system is better for second-order thinking. This is partly why in SAF and RSAF forums, we have a breadth of expertise across commands and departments. The knowledge across disciplines and subject matters is what enables us to understand the “why” and determine the right things to be done.

## **1.4 Optimising at the system level and at the sub-system levels**

18. Another useful dimension to consider in analysing an issue is the level of the organisation, or the balance along the generalist-specialist spectrum, at which we should optimise. When our airforce was set up from scratch, we had to optimise at the lowest level. That is, we had to concentrate on building up type and vocational competence. But once we have built up a solid foundation in type competence, in order for the RSAF to progress, we have to seek greater task competence. The level of optimisation therefore moves up. On the other hand, when we first built the SAF, we initially tried to optimise at the level of the SAF. The air and naval capabilities were only Commands within the SAF rather than separate Services. But this level of generality was too high for a new organisation and in 1975 we had to devolve the air and naval components into separate Services.
19. Optimising at too high a level of generality runs the risk of not having enough type and technical competence. Optimising at too low a level of generality ensures type and technical competence but insufficient task or team competence. A football analogy is useful. How much should we train an attacker in all the technical virtuosity of dribbling and shooting and how much should we train him in a team? The balance is not easy to strike. Brazilian teams have individuals who are very talented but not always robust enough as a team. German teams on the other hand often have less world-class individuals but nonetheless gel strongly as a team and repeatedly do well in international tournaments. If we strike the right balance, the end result will be a strong team of great individuals.

20. 2 years ago, the RSAF evaluated the arguments for and against maintaining our template for Tactical Air Navigation (TACAN). To optimise at the national level, we should release the TACAN height template over PLAB so that national development is enhanced as much taller buildings could be built in the Central Business District and in Marina South. But this must not have a critical adverse impact at the level of the RSAF by compromising safety. To ensure safety is not compromised while enhancing national development, the RSAF moved the TACAN over from PLAB to CAB. We were able to optimise at both the levels of the country and the RSAF, an infrequent but certainly win-win situation. I consider this as one of my main achievements as the Chief of Air Force even though it did not increase the effectiveness of the RSAF. However, there is often no fixed answer as to the right level of optimisation. Although optimising at the higher level was right in this case, there are times when one would need to optimise at the lower level. The point is that staff officers need to present and evaluate both perspectives.
21. While it sounds elementary that a staff officer must study the situation and analyse issues deeply, you will be surprised at how often this is not done well. Every now and then, I come across meetings that have to spend a long time trying to decipher the rationale and principles for proposals in a paper instead of debating whether the proposals were sound. You know that a paper has not been well written if the analyses take place during the approval forum, when they should have been explained in the paper. Conversely, there are occasions when an issue is so well thought through that the forum has nothing to add. When the Air Force tabled a paper that proposed the creation of the UAV Command in 2006, it was approved with no comments from Minister or other members, even though it had widespread and long-term implications on UAV development across the SAF. This was because the inputs and concerns from all stakeholders were thoroughly considered and presented, and the forum just had to decide whether or not to agree with the recommendations.

## “Recommending Plans” – Presenting the Contents of Staff Work

22. With sufficient ambition, conviction and depth in your thoughts, the next step is to transfer your ideas to another mind. The main medium is through the written word. MINDEF has standard writing instructions to help the staff officer. The 4-page rule forces you to be disciplined and to stick to key issues. The standardised headings of *Introduction*, *Aim*, *Principal Considerations* and *Recommendations* impose a consistent structure to facilitate writing and reading. But it is not enough just to follow these rules. The ability to convince people of your proposal also depends on how clearly your arguments flow, how you pen your thoughts and how you seek approval for your ideas. Incidentally, I recently read a book titled “Life’s a Pitch: How to Sell Yourself and Your Brilliant Ideas” co-authored by Stephen Bayley and Roger Mavity. It makes similar points and reinforces what I will say in this section.

### **2.1 Having a sense of advocacy and a logical flow of arguments**

23. One of the most important points a staff officer needs to do before he writes a paper is to decide what is the question he is answering and what is the solution he intends to recommend. Staff officers sometimes make the mistake of writing down everything they know without being clear on the points they really need to convey. Such papers lack a sense of advocacy. A sense of advocacy means that you keep in mind why you are writing the paper, what is the position and recommendation you are pushing for, and using these as the destination, working backwards to see which points or arguments are relevant and which are not. Only the relevant ones go into the main paper so that people understand the issue without being mired in needless details.

24. In briefings and presentations, I have often told staff officers to be clear about what they want the audience to walk away with. The staff officer should ask: “what are the messages I want the reader or audience to take away?” With that in mind, write your paper or present your brief always arguing and leading the reader or audience to that message. Everything in a paper should lead the reader towards the conclusion and recommendations you have in mind,

with each paragraph edging his views closer to the conclusion you want him to reach. Papers and briefings must not just be a haphazard series of points digressing or leading nowhere in particular. Too often, staff officers start to write, and end, papers without ever consciously imagining what readers would make of their paper.

25. Related to a sense of advocacy is the need for a logical flow. Write systematically and logically, building progressively on what has been said before. Too many staff papers are choppy in the flow of their arguments. A good flow starts with the title. An inaccurate title misleads the reader and makes it more difficult to absorb the arguments that follow, not to mention that it destroys the credibility of the paper. A recent paper titled “F15SG local basing plan” turned out not to be about basing at all, but dealt with the number of squadrons our F15SGs should be divided into and the number of aircraft in each squadron. Another paper promised a “review” of an operating concept, which connoted that there was an existing concept in practice, but it turned out to be a “proposed” new concept to be implemented.
  
26. The titles of the sections within a paper similarly prepare the reader on what to expect. But very often, the contents in a section fail to deal with what the title suggests. Here, I want to focus on what the Principal Considerations (PC) in a paper should be. There are three very common errors. First, the PCs are often mistaken to be the impetus for doing what the paper wants. But the PCs are in fact the factors to govern the “how”, whereas the impetus governs the “why”. For example, the reason *why* we need the Participation Command or the impetus for setting up the Participation Command is to increase the effectiveness of the RSAF’s contribution to land operations. The PCs are then the factors to be considered when deciding *how* to design the Participation Command to achieve the reason for *why* the Command was set up. The PCs would therefore include considerations such as “the degree of integration with the Army”, “a good balance of focus on the task and type competence of air-land operations”, and “the degree of integration of different units in the RSAF which participate in the land campaign.” Second, the pros and cons of each

option suggested in the paper must be explicitly related back to the PCs to see which option measures up better. But many papers make no reference back to the PCs in the rest of the paper. This is not unlike your financial consultant suggesting to you different investment tools without referring to your risk profile, desired diversification, or the correlation between the different tools. You would be right to think that your consultant does not understand what he should be doing. Third, the PCs in staff papers are sometimes not well thought through and the clinching factor in favour of an option does not feature in the list of PCs presented. For instance, there was a paper that proposed the frequency in which senior RSAF officers need to fly. The PCs included the need for senior officers to maintain command presence and to continue to be exposed to flying in order to carry out their jobs better. However, the paper did not include a PC on the ability of the squadrons to support the increased flight taskings. This last factor turned out to be one of the key issues of contention during the meeting.

27. The flow of an argument may also be disrupted if critical information is not presented. In the case of staff papers proposing a new entity or capability, a common omission is the concept of operations that would govern the employment of the new capability. The CONOPS explains how a proposed entity would be employed in conjunction with other weapons and systems in the RSAF's orbat. For example, when the papers that addressed the micro-structures and estabs of the Operational Commands were tabled in 2006, several did not explain the CONOPS of the Commands. In the absence of a CONOPS that indicated how the Command would work with other agencies, there was no basis for the approval forums to decide whether the proposed structure and distribution of estabs within the Command was sound.
28. Another way to improve the flow of a paper is to present the arguments in each paragraph coherently. Make arguments, not assertions. Arguments are properly explained and supported with examples or evidence, whereas assertions are unsubstantiated statements. Some time back, a paper that proposed an information management plan for a new capability stated the

need to limit information release without explaining further. It was not easy to discuss whether the information should or should not be limited because there was no argument on what basis the information should be limited. For instance, it was possible for someone to point to the need to release selected information for the purposes of deterrence. The paper should thus have argued that restriction of information was necessary for OPSEC, but at the same time to acknowledge the need for it to be balanced against the release of information for deterrence purposes. In crafting an argument, the main point should appear as the first sentence, not concealed in the middle or end of the paragraph. A trained reader absorbs information in a paragraph in the context of its opening line. For new staff officers, a simple paragraph structure for an argument is this: the first sentence makes the point; the second sentence elaborates on the point; the third sentence provides an illustration or evidence; and the fourth sentence relates the point back to the issue tackled in the paper. This generalises things but for starters it may be a useful heuristic.

29. Finally, all arguments must lead to recommendations. The minimum deliverable for any paper, staff note or presentation is that it must contain suggestions on how to proceed. The staff officer must always include recommendations on the concrete follow-up work on the issues raised. I have often come across exercise and trip reports that consist of only observations. Such papers are useful for information but they will not result in much progress. An organisation or society that conscientiously makes it a point each time to identify a few concrete items to follow up, compared to one that does not, will make faster and more progress over time.

## **2.2 Using clear, concise and correct language**

30. Beyond the thoughts, the flow, the sections and the paragraphs of a paper is the use of language. A few months ago, I received an email titled “Chinook Rescue of Merchant Ship”. The Chinook of course rescued some personnel from the ship – but not the ship. The problem of language is not confined to the RSAF. In 2007, a reputed international aviation magazine *Aviation Week* reported that

“The Republic of Singapore Air Force has deployed a fifth KC135 to support operations in Afghanistan and Iraq. RSAF has also sent C130 transports to the Persian Gulf region”. Someone not familiar with the RSAF would have thought that we had deployed 5 KC135s and a few C130s to the Gulf all at the same time. What actually happened was that it was the fifth time the RSAF had sent a KC135 to the Gulf, and that we had also sent one C130 there previously. In this case, the poor language favoured us by giving the impression that we had a much bigger presence than we actually did.

31. The use of words, and the choice and arrangement of words in accordance with the rules of grammar, are key to conveying ideas from one mind to another. But I have encountered many instances of wrong English, poor English or the loose use of English. For example, the correct way is to say that “It is *recommended that* the meeting approve...”. But in a recent meeting, there was a slide that read “The meeting *is recommended to approve...*”. There are also papers with grammatical errors, such as “It is recommended that the meeting approves...”. Yet another common mistake is to say that “Minister has approved *for* the Black Knights to deploy...”. The correct sentence should be “Minister has approved *that* the Black Knights deploy...”.
32. I will highlight a few more common mistakes to reiterate the point. Some are grammatical errors, some are spelling errors, and others are examples of the wrong use of words. “This paper aims to inform you *of*”, not “inform you *on*”. After reading this note, I believe “you *are likely* to get better” at staff work rather than “you *would likely be* getting better” at staff work. You can choose to “apprise” me of your feedback, which is not the same as choosing to “appraise” me. I expect my senior officers to “oversee” staff work, not “overlook” them. You are “responsible *for achieving* standards”, not “responsible *to achieve* standards”. Earlier, I talked about “*principal*” considerations and not “*principle*” considerations. A staff officer knows that a “*deadline*” is different from a “*dateline*”. “I *could* reward you for good staff work” conveys a different meaning from “I *would* reward you”, “I *might* reward you” or “I *should* reward you”. “The staff officer is responsible for writing clearly” is used in a different

way from “A *staff officer* is responsible for writing clearly”, which is used differently from “Staff officers are responsible for writing clearly”. It is “*the* RSAF” and not “RSAF” that is keen to improve the standards of staff work and I am “*the* Chief of Air Force” and not “Chief of Air Force”. I will leave it to you to clarify if you did not understand any of these examples.

33. Something that puts a reader off immediately are grammatical and typographical errors. A report that came to me for final vetting prior to being distributed to the MINDEF leadership had a sentence that read “the increased exposure of our officers *have* strengthened *our their* confidence in the RSAF”. In this short sentence, there is a grammatical and a typographical error. There were also errors strewn all over the paper. Such mistakes reflect a lack of discipline and conscientiousness. If the staff officer does not find it important to do these basics properly, do not expect the reader to take what you write seriously either. One of the best ways to avoid errors like these is to have your paper proof-read by an untainted mind, someone who has not seen it before. A staff officer should not pass such mistakes to his branch head to correct, a branch head should not pass them to his department head to correct, and a department head should definitely set high standards for his department and arrest the mistakes. Yet, I often find careless errors. Recently, there was a paper which would have been distributed to the MINDEF leadership if I had not stopped it. Within a paragraph, this paper had sentences such as “to experiment operating concepts...” rather than “to experiment *with* operating concepts...”; “to validate CONOPS of...” rather than “to validate *the* CONOPS of...”; and “to refine concept of...” rather than “to refine *the* concept of...”.
34. Quite apart from the wrong use of English is the poor use of English. Good writing does not mean using big words to impress the reader. It means using simple, clear and concise words. For instance, use the word “aware” if you are not sure how it is different from “cognisant”. Use the term “based on” which is easier on the mind than “premised upon”. The sentence “A total of 81 servicemen were diagnosed with Dengue fever across the SAF in 2007” is not grammatically wrong, but it can be re-written as “81 SAF servicemen were diagnosed with Dengue fever in 2007” to form a sentence structure that is

easier to read. Convey your message using the least number of words, so that every word has a unique and necessary contribution to the sentence. There was a paper with this sentence: “Most of the media coverage on the RSAF from January to March 2008 were *largely* intended”. Nothing is lost if we remove the word “largely” since the word “most” is already in the sentence. Another paper wrote “The RSAF is *currently* embarking on its transformation into the 3<sup>rd</sup> Generation Air Force”. Again, nothing is lost by omitting the word “currently”. In the sentence “we should *place more focus on* people development”, the writer could have said “we should *focus more on* people development”. If you scrutinise the need for every word in your paper, you may be able to fulfil the 4-page rule without resorting to 0.5-inch page margins or 6-point font spacings between paragraphs.

35. Next, the loose use of English. This is a trend we need to arrest because it reflects sloppy thinking. I don’t like the “/” because it often means that the writer is not sure what he is referring to. There was a sentence in a paper that said “The approval for a deviation from these guidelines will be sought from CAF/COS(AS)/HAO”. I asked who exactly the approval authority was, and got no clear answer. Similarly, do not use phrases like “and so on” or “etc”, because it means you have a vague idea but you are not sure. Last year, when I was signing congratulatory letters for officers awarded National Day medals, I noticed that the letters read “Your many years of commitment and dedication to your work and the organisation have *undoubtedly* contributed to ensuring that the RSAF remains true to its vision of being a ‘World Class People, First Class Air Force’”. The word “undoubtedly” suggested that the writer was not certain what the officer had done but believed he must surely have contributed. Also avoid overly definitive words like “impossible” or “undoubtedly”. They invoke the same skepticism in the reader as when you say something will be “forever”. In addition, scrutinise the meanings of the words and phrases used. Some words have overlapping meanings but they are not the same. A common error is the use of “similar” and “identical” interchangeably. There was also a paper that used “concept development”, “system development” and “capability development” synonymously, but the three terms in fact mean different things.

36. It is important to demand high standards in our language. In 1979, Minister Mentor, then-Prime Minister, had gathered the top brass of the government and the civil service to talk about the importance of writing clearly and concisely. You may also have heard our Prime Minister and other Ministers in their speeches say that one of the main reasons Singapore has succeeded internationally is that English is the language of science and commerce. Our unique proposition for many years was that we were one of the few colonial countries who embraced English instead of turning against it during the 1950s, 60s and 70s. This gave us a huge head-start. But if we allow our standard of English to slip, we could one day lose one of our main economic advantages.

### **2.3 Using numbers, graphics and verbal presentations effectively**

37. Besides the flow of arguments and the use of language, let me share two further ways to present staff papers more clearly. First, make effective use of numbers, charts, tables, diagrams and pictures. They summarise chunks of data into easily readable forms. But numbers in themselves are meaningless. It is only when analysed against longer-term trends, contexts and denominators that their significance is apparent. This is something many staff papers fail to do well. For example, you can report the recruitment figures this year but it means nothing until you compare them against the statistics from the past years, explain what the figures mean relative to recruitment targets, analyse the ramifications for the RSAF's future manning, and recommend actions needed based on those figures.

38. Moreover, not only do many papers fail to present statistics in a helpful way, they also do not present the figures in a way that is obvious how one number leads to the next or to the conclusion. The reader consequently has to do extreme mental acrobatics or to struggle to make sense of the conclusion. A paper that compared the annual safety performance of two air forces – the YAF and the ZAF – reported that the mishap rate was 0.947 for YAF fighters and 1.795 for YAF transport aircraft, compared to 0.828 for ZAF fighters and

1.044 for ZAF transport aircraft. A footnote added that the YAF flew 6,506,650 fighter hours and 8,936,820 transport hours, while the ZAF flew 241,624 fighter hours and 95,775 transport hours. The paragraph then concluded that the ZAF's performance was therefore *comparable* to the YAF's. No matter how I multiplied, divided or subtracted those figures, the ZAF's statistics were still superior, and I could not understand how the conclusion was reached.

39. Second, the use of the spoken word. When done well, the spoken word is stronger, more emotive and commands attention. But let me set the record straight on the use of presentations. For important issues such as operational planning, I discourage the practice of depending solely on briefings and powerpoint slides. Powerpoint slides are inadequate in explaining the deep rationale behind the actions planned. When a staff officer hands over his job, the successor is highly unlikely to understand the rationale for the thoughts just from the slides, unlike if there was a paper that explains the plans or the processes of planning.
40. But presentations can complement a paper if they are done well. I have some pointers. First, know the rules of the meeting. I don't encourage slide presentations in the meetings I chair unless you have something to add beyond what is in your paper. But in some meetings, slides are compulsory as a preamble to the discussion. If unsure, check with the meeting's Secretary. Second, learn how to use the staff aids such as the projectors, video equipment and lighting in the room. The inability to operate a projector or the lighting has often led to interruptions or awkward silences. Third, be sensitive to the body language of the listeners. You may have planned a list of things to say but speed up if people are getting restless. Fourth, be sensitive to your own habits. Some people tend to intersperse their speech with "so-called", "ok" or "alright", which can be grating on the listener's ears, not to mention that "so-called" is a risky adjective to use carelessly because you may end up saying "the so-called Chief of Air Force Ng Chee Khern" by which you mean that I am not really the Chief of Air Force in your opinion. Fifth, the correct way is to write in codewords, but speak in clear. Sixth, although speaking in a near-scripted

way is acceptable for an inexperienced briefer, you should build up confidence to speak off-the-cuff so that you can convey the right tones and stress the right points. Seventh, when taking questions, let people finish before you answer. Members of meetings are senior enough to know what they are asking. They don't like to be interrupted with an answer they are not looking for and have to repeat their question. Finally, listen carefully to the question. Know why the question was asked and understand the concern that prompted it. One of the main ways in which a person reveals his abilities is the extent to which he can answer a question to the point and how well he can engage in a discussion. And rather than waffle, talk about something else you are more familiar with, or repeat what is already in the paper, just answer the question.

## 2.4 Getting the staff processes right

41. Apart from the contents, the processes of staff work are equally crucial. These are the steps beyond the thinking and the writing to get your ideas approved. In April last year, a draft Squadron Commander's handbook was promulgated before I had even seen it, even though it was intended to be a RSAF document. Last July, the RSAF *40<sup>th</sup> Anniversary* book was submitted to me through the staff channel without discussion at any forum. Both documents should have been properly tabled for discussion at a RSAF-level forum because they dealt with RSAF-level issues. The *40<sup>th</sup> Anniversary* book was to be sold to the public and even greater care should have been taken to ensure that the relevant forums were given the chance to comment on it.
  
42. The distinction between "endorsement" and "approval" is often not well understood. There was a draft paper that sought the MINDEF leadership's *endorsement* for a proposed concept. Endorse means "to say publicly that you support a person, statement or course of action", whereas approve means "to officially agree to a plan, request". By asking the MINDEF leadership to "endorse", you are saying that it does not have the authority to approve the paper. But the MINDEF leadership is the highest authority in the ministry and hence they cannot be endorsing for a yet higher agency to approve. In another

instance, a staff note prepared to answer a query from Minister was planned to go through CAF, PS(DD), PS(D) and then Minister. I tried very hard to see why the staff officer routed it as such but could not figure it out. If the intent was to go through all my superiors, it should have gone through CDF too. The note was eventually amended to go to Minister through CAF, and copied to the rest.

43. Some things are more urgent than others. Operational matters and breaking news involving the media and the public are generally more time-sensitive. When such issues are brewing, the staff officer must be quick to keep their bosses informed and “armed.” Otherwise, your bosses would be surprised by their bosses or ambushed by the public on an issue they should know but they do not, because you have not informed them in time.
44. One trend that has become increasingly prominent in recent years is the creation of joint task forces and matrix structures, and the consequent need for multiple reporting. Multiple reporting involve staff processes that are not as straightforward as the traditional single-reporting line. For example, in the deployment of our Super Pumas with the Landing Ship Tank to the Gulf of Aden, both the RSN and the RSAF are involved. Some decisions will need to be taken by the RSN leadership, and some by the RSAF. Staff officers must understand what to surface to the different agencies for approval or information. Where inputs are required at the staff level, they must be properly endorsed by the correct agency first before they are submitted formally. This is not meant to add to the bureaucracy, but to ensure that people with the right expertise and experience lend their collective wisdom to the issue at hand.
45. When tabling papers through different forums, don’t prepare a one-size-fits-all paper. Every forum is interested in a different aspect of the issue and each forum consists of people with different backgrounds. While it is the responsibility of the Air Force leadership to scrutinise the tactical and technical details of a proposal, it is the responsibility of the MINDEF leadership to scrutinise the strategic and political implications of a proposal. Hence, the

way a paper is written should reflect the different concerns of the forums to which the paper is tabled. Refine your paper and provide more or less details as necessary. In addition, write your paper for a generalist, not a specialist. Someone who knows nothing of the topic must still be able to understand your arguments. Last year, a draft paper that proposed a revised approach for outsourcing the maintenance of RSAF aircraft referred to “the Onion and Pizza models”, without clearly explaining what the two models were. These models may be known to the logistics community, but not to the rest of the RSAF, let alone to the MINDEF leadership. The paper was revised to include a brief explanation of the Onion and Pizza models in the Introduction. Another draft paper used the acronyms FSC and AMT without explaining them in full. While people in the RSAF know that they stand for Flight Simulator Centre and Air Mission Trainer respectively, members of the MINDEF leadership may not. If you want the forum to understand your paper to improve the chances of having it approved or endorsed, write in a way that the members of the meeting can easily understand. A useful guide is to write your paper for an intelligent but uninformed reader.

46. One measure that I advocate although it is not an institutionalised process is to strategise and position an issue so that it has a higher chance of success when tabled to higher forums. Before you surface an important issue for approval, it would be best if you can find ways to sense the opinion of the decision-makers. If the decision-makers are hearing your recommendation for the first time, you are getting into a high-risk game of the proposal being rejected. The SAF goes through a process of pre-operation planning before going into battle to ensure that we are well-prepared. Similarly, when treating a significant issue, consider briefing the Chairman of the meeting beforehand to seek some views first. Alternatively, you may wish to use other related papers to bring up the point – what some of us call “floating a balloon” – to sound out an issue and obtain a sensing of the opinions first. Without an idea of your bosses’ views in a general way or where they stand on an issue, you run a great risk of a proposal being completely thrown out.

47. But this does not mean that you should be a “yes-man” or second-guess what your bosses think. As I explained earlier, it is paramount for you to first be convinced about your ideas before you surface a proposal. This is a balance you need to strike. One of the most important things for a staff officer is to know how and when to take directions. Listen to what your superior has to say, rather than be overly eager to tell him what you are thinking regardless of what he is saying. If after evaluating what he has said, you believe you have a better suggestion, raise it. But listen first. Some staff officers do well because they are very intelligent. Some staff officers may not be as intelligent but they still do well because they listen to and carry out their bosses’ intent in a way that earns their bosses’ trust, comfort and confidence.
48. This brings me to another point – the need for minutes. Whether it is a briefing, informal discussion, ground visit or a Q&A session at seminars, notes of discussions should be taken as long as the senior MINDEF or SAF leadership is involved. The spoken word is perishable and memories become vague quickly. A culture which depends only on oral transmission is a relatively primitive culture. Only when a culture is able to transmit through the written word does it become a civilisation. Minutes help people remember what was said and give credibility when reference is made to the views expressed. Minutes also help to inform those who were not at the session – including future generations of staff officers – of the discussions that took place. Well-taken notes are therefore crucial. BG(NS) Bernard Tan has written a useful guide on minute-taking when he was the Chief Armour Officer some years back. I would just add one more point to his guide. In general, the higher up the hierarchy, the less the note-taker can take the liberty to filter or paraphrase the discussions. Senior MINDEF and SAF officials choose words carefully to convey a specific point and the subtle nuances, and minutes should take what these members say in verbatim. Perhaps at lower forums or sessions that involve less senior officers, more discretion is allowed.

49. Finally, plan a reasonable timeline to submit your paper. This appears to be common sense but it is alarming how frequently it is not done. Different forums have different rules. I ask for meeting papers to be distributed 4 days prior so that I have time to read the papers. Deadlines are set for papers to be distributed so that the Chairman and members have enough time to read and think about the issue, do justice to your work, provide value-added comments and make sound decisions. Forecast all the forums that your paper has to go through and cater time for meeting schedules, amendments, and the movements of key personnel. If the paper has to be tabled to the MINDEF leadership, the staff officer should work out a reasonable schedule that would allow the paper to incorporate comments from the meetings chaired by PS(D), CDF and CAF prior. One thing that bosses do not appreciate is to be given *fait accompli*. There is no point in tabling a paper, only to tell the Chairman that his comments cannot be incorporated because you have run out of time to make changes. If yours is a substantial paper, submit in chapters and not at one go. A 200-page book was submitted to me for vetting in July 2008. It was an excellent book but as the entire book was submitted to me all at once three weeks before it went for print, I could only ask for changes at the margins, when in fact, I had preferred a quite different framework to organise the contents in the book. If it is a speech you are preparing, submit the draft well in advance because the speaker would have his own points to add.
50. Having said so much about how to submit papers and issues, I must say that we should also be discerning about what papers and issues we in fact surface up. Officers sometimes feel they are micro-managed or not sufficiently empowered. If so, you should not invite others to micro-manage you if a decision is within your pay-grade to make. By referring decisions you could have made to your bosses to approve, you are inviting your bosses to micro-manage you. Many of us say tongue-in-cheek that a decision is above our pay grade. But I also often say that a decision is below my pay grade because it should be taken by levels below me.

## “Translating Decisions, Supervising Execution” — Implementing the Contents of Staff Work

51. Many staff officers think that their job ends when a paper is approved. This would be like me saying that my job is completed the moment the vision of the 3<sup>rd</sup> Generation RSAF was approved. In my Workplan speech in 2008, I focused on the importance of *managing* transformation. I said that “what distinguishes a truly successful organisation is not how sharp or visionary its ideas are, but how rigorously its people are able to confront the difficulties and implement those ideas.” We can have the best policies on paper, but they would not translate to useful outcomes unless followed through and implemented. A culture with proper *follow through* distinguishes us from many other countries and gives us an immeasurable advantage. When we promise to do something, we deliver. This is one of the key lessons of Singapore’s history of success.
52. Two deeply-entrenched cultural factors help us ensure rigorous follow-through in the implementation of our ideas and policies. First, we have a strong organisational culture and our people know that the organisation expects us to deliver on our promises. Second, our people have the discipline as individuals to live up to the organisation’s expectations. This has been witnessed time after time when we organise and successfully pull off major events such as the Global Air Power Conference and the annual National Day Parades. We must not allow either the organisational culture or the individual discipline to weaken.
53. But this is not enough. The translation of policies to outcomes can still be tenuous and haphazard in the longer term if we do not understand the role of the staff in enforcing and supervising the execution of plans and policies. In the last cycle of Workplan presentations by the Operational Commands to the Chief of Air Force, I noticed that the HQ RSAF departments made very few comments on the presentations even after I asked for their views. To ensure that the Commands execute the plans laid out to them by HQ RSAF, it is the responsibility of the staff in HQ RSAF to *hold* the Commands *to account*. There must be a proper system of checks and balances, and of enforcement and accountability. It is not enough to rely on *trust*. This is not a matter of whether

the Chief of Air Force trust the Commands to carry out the plans laid out to them by HQ RSAF. It is about the need for a strong institution of governance, without which we cannot be sure that the implementation of policies can remain rigorous over the longer term. Many countries in history have declined or collapsed because they did not have institutions capable of systematically and consistently demanding accountability from their sub-units – Gorbachev’s Soviet Union and the Chinese dynasties in their declining years. And in the same way that the HQ RSAF departments help the Chief of Air Force enforce the execution of plans on the Commands, the Ops Development Groups are the staff to the Operational Commanders to enforce that the squadrons and battalions implement the plans of the Command.

54. Another aspect of supervising execution is to develop the tools and feedback loops to ensure a closure to the conceptualisation and implementation of policies. One example is how the RSAF has implemented our organisational restructuring since 2006. To have proper accountability over the implementation of our restructuring, we had a system where interim and full Post-Implementation Reviews were conducted three months and one year respectively after each Command was set up.
55. No less august a person as Mahatma Gandhi said: “the measure of success is not the result but the effort.” Many earnest kind hearted officers would like to believe this. But unfortunately, I cannot agree with Gandhi. War is a serious undertaking where failure can mean not just the deaths of family members or fellow soldiers and countrymen, but also the demise of the country. In something as grave as war, surely the result must count. And not only must the result count, the result is arguably the only thing that counts in the case of a fight for survival. That one has tried his best is an excuse that we cannot afford in war. It is precisely the staff officer who has a crucial role in supervising the execution and enforcing the outcome. In war, process-success ranks a far second to outcome-success. The staff officer must concentrate on the ends more than the means. We must not give in to a culture where just trying hard is a good enough reason to find an unsuccessful outcome acceptable.

# CONCLUSION

56. Before I end, I apologise for having used real examples. I felt that doing so was necessary to illustrate my points more clearly. In staff work as in other parts of our jobs, we learn best from mistakes. By pointing out to you the errors that others have made, you would understand the expectations better. It is not difficult to be a reasonably good staff officer. You just need to be thorough in your analyses, keep the big picture in mind, write your ideas in simple and tight English, go through the forums and timelines for approval, and supervise the implementation of your ideas. None of this is beyond you but it does require intellectual rigour, discipline and conscientiousness on your part. You must demand from yourself and your colleagues high standards. Don't pass the buck to somebody else. This is no different from what I have always been urging our personnel to do in operations – to demand high standards and not let yourself or anyone else be sloppy. This note is not a proper all-rounded teaching tool but I hope that staff officers would find it useful.

## *Acknowledgement*

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