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Applying Attribution Theory to Perceptions of Maintenance Error

Cajee, Muhammad Yousuf

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Appendix E

Maintenance Staff Interviews- Primary Error Attribution Themes

Dialogue	Primary Error Attributions		
…so people tend do rush it, they don't concentrate on their task or they don't observe…	time pressure	Time Pressures	Organisational Environment
…the guys are pushed to get the job done, you know they are more concerned about getting the aircraft serviceable then safety…	Time pressure		
…I felt that he was overlooking the safety options in favour of getting the aircraft out and not considering all the people around that were affected by his actions…	Time pressure		
…again I feel they are too focused on getting the job done…and they tend to discard all the..some of the safety aspects…	time pressure		
…it is a fact throughout this sort of industry where time is a problem for both…	time pressure		
…I will see it in the manager has no time for the investigation…	Time pressure		
…biggest ones is we don't have the time and we don't have the proper education…	time pressure		
…sometimes the job must be done, that's it, its simple. We got, now the aircraft must fly, its money for the company, you know what the cost is if these things doesn't fly.	time pressure		
…I would say time, that there is not enough time, and the guys are quite pressed to get the job done…	time pressure		
…it was caused because of a lack of time, because we were in a rush…	time pressures		
…he pulled the isolation pin out, then obviously the flaps extended and damaged the engines…	time pressures		
…if you have time to go to the locker to pick it up, now they push you for time, now what the guys do is to just throw the chemicals there and tell you now I feel like heaven and they'll laugh about it…	time pressures		
…you don't have time to go to the store, sometimes you work outside here, the store is that side and you don't have a vehicle…	time pressures		
…the times that I went on top of the wing, I was never pressed for time, it is easier to get the stand and get on top there, and there wasn't even the feeling of trying to impress anybody…	time pressure		
…no time to have it vented and bad planning…	time pressures		
…those people they are in a hurry to finish…	time pressure		
…sometimes you haven't got the time because you are pressurised…	time pressure		
…he doesn't care because the team leader or whoever is standing there right behind him and he is pressed for time…	time pressure		
…we loading content every month and it is between six and seven hours…	time consuming tasks		

Dialogue	Primary Error Attributions	
…I also feel that people don't really communicate to say what they…to a psychiatrist or some kind of …	staff don't talk about their issues to a counsellor	Lack of Counselling Outlet
…a counsellor..ja. Somebody in that sort of position where they might go and discuss problems and try to come out with a solution…	staff don't talk about their issues to a counsellor	
…I told my team leader that the company must get a psychologist to come here say three times a year, to just come and have a chat and see what the guys are thinking…	counselling not available	
…what I'm saying is that he must come here and take a few at a time, and just speak to them, if you don't have anything to say you can leave…	counselling not available	
…the men will not go to psychologists and say listen, I got this stressing me out. Men will not do that. That's how we are…	counselling not available	
…I think that bloke he got some problem at home, he keeps it to himself…	lack of outlet to deal with domestic problems	
…even if in private life you got trouble at home, the environment just makes it more stressful and stressful and some guys lose it…	stress	Stress and Workload
…stress in this place, what happens is some of the people because of the work that we do, you go home every night and there is 700 peoples lives you signed for and it does have some amount of stress on you…	stress of responsibility	
…stress can cause that…	stress	
…that going to make my workload more, so in essence I'm not going to get my work done and that's going to cause delays…	increased workload	
…I'm just going to do the five that I used to do safely, and I'll leave the other five for somebody else to do…	working safely	
…that really is long time to work sometimes twelve hours, and then you get six aircraft a day and that is really a lot of work to do…	long hours	
…that really is long time to work sometimes twelve hours, and then you get six aircraft a day and that is really a lot of work to do…	heavy workload	
…if they had more people available to work on the engine, and that they levelled out the hours so that people can have a safe amount of work…	work overload	
…those people that was running around doing ten hours work in five hours, he's going to be the one that is going to get a hearing because of an error or because of a mistake he has made…	commitment to meet unreasonable deadlines	
…we come her at six and we leave her at six the next night, and the guys didn't even have a cold drink or something to eat, that's a long time, but they will rather take an hour or half an hour extra to do the job better than sitting and taking a brotjie...	possible effects of fatigue	
…the guys on a high level, they also put a lot of pressure here…	management pressure	

Dialogue	Primary Error Attributions	
…the opportunities in this place are very little, there are very little opportunities…	lack of career growth opportunities	Lack of Career Growth
…some of those people are forced to be the way they are to get promotions in this place…	lack of career growth opportunities	
he got his full certification, why must he still know more. The more you know here, the more work you do, and you get nothing for it…	lack of reward for enhancing qualifications and expertise	
…so he said, why must I go for the 400 and the 600 airbus, so that the team leader can sit on his ass and he must do he's job, his rights. He's not interested anymore. I did the 400 avionics course, it is 14 weeks, they did the 400 course IFE, two days, and he get the same pay...	lack of reward for enhancing qualifications and expertise	
…every time he turns around it would knock against the bulk head or something…	Safety equipment is cumbersome	Safety Equipment Design and Logistics
…come people say that the safety shoes are not comfortable, you get a lot of people that say it hurts their feet once again…	safety equipment uncomfortable	
…the hearing equipment they say hurts their ears and it is really not a problem for me…	safety equipment uncomfortable	
…but its dirty, you don't want to use it…	hygiene factors	
…somebody else has used it, then you want to replace the respirator…	hygiene factors	
…on a winters day if you put that thing on, just now it is misted up again and you can't see…some are sweating all over the thing…	equipment hinders sight	
…but you see it is a hassle, you have to put the vacuum anchor on top of the wing…	perceived inconvenience of safety	
…tell him give me a bucket of trike, then the store now, they must know what we going to give him, gloves, we got to give him a respirator, we got to give him rags, altogether…	safety equipment not issued as standard with chemicals	
…mine is broken, it doesn't have the glass, it fell out. It doesn't have the things that goes around the ears is out. Every year if they say right, it is time for new safety goggles everybody…	equipment not replaced as standard regulation	
…you can't just go there and say, ok, I want personal safety goggles now to keep in my box. They don't have it readily available.	replacement safety equipment must be ordered, not readily available	

Dialogue	Primary Error Attributions	
…I don't think they take accountability, they think they'll be victimised or disciplined if they report it, you've had instances…	fear of victimisation or disciplinary proceedings	Shortcomings in Disciplinary Process
…Taking you to the hearing that's why people are afraid to report it…	fear of disciplinary action	
…you got a guy that's reported it and they say look, you reported it you in trouble, so they'd rather keep quiet…	fear of victimisation or disciplinary proceedings	
…its not worth for me to complain because I'm only one year, here now…	lack of confidential and anonymous measures to complain	
…they not happy, but then what can they do. You see its his word, if he wants a smoke break, it's a smoke break…	lack of confidential and anonymous measures to complain	
…no problem I'll fix it and at the end of the day nothing happens and it's a problem…	shortcomings in disciplinary process	
…must be welcomed by the higher management to go and complain and to go and speak there…	no direct line of communication to complain	
…the rules of the company says that you must work and then after complain…	work now complain later philosophy	
…supervisors know if they don't bring it you have to do the work…	work now complain later philosophy	
…usually follow up this complains but at the end of the day nothing we get…	complaints lead nowhere	
…the safety rep they are talking to those guys but a person just leave now and say haai you see time is up I'm just going now…	inadequate sanctioning	Inadequate Sanctioning
…we do report it … lets say we report it today and um… we make the way the following morning after wards people they are using that stand…	inadequate sanctioning for violations	
…no harsh punishment for them...	inadequate punishment	
…But if there can be a strong punishment I think people can obey those rules…	inadequate punishment	
…no problem I'll fix it and at the end of the day nothing happens and it's a problem…	inadequate sanctioning measures	
…you must see how we must do it, you take the thing on the table in the tea room…	lack of proper workspaces	Workspace
…we take the whole steering wheel off, we put it on our tea room table, that I already know, we work right here, now…	Lack of proper workspaces	

Dialogue	Primary Error Attributions		
…then you have to go and write down things again…	long procedures	Processes and Procedures	
…but it is something different to have to go there and write ten different requests for the store man…	long procedures		
…I promise you, I've been to Germany, Lufthansa. I've been there, those people will not work the way we work here…	Company processes out of date		
…to get that thing from the store is going to be a big hassle, and you need air for it if I am not mistaken…	hassle to order equipment		
…if you get on top of the engine in the first place, I don't think you need a vacuum anchor there, if you can only have a lekker high stand, then you can just sit on the engine and work there…	some rules seen as irrelevant by staff		
…you don't want to go through the hassle to get all the equipment ready…	hassle to get equipment ready		
…no. if it was there and on top of the wing already, id put it on. Now I have to go get it and put it on myself…	hassle to get equipment ready		
…maybe it doesn't go to the stores to order that equipment …	tedious process to order equipment		
…if you come to a store, the store man can't tell you who got that ladder, so what happens now…	Processes not adequate to keep track of tools and equipment location		
…the people are afraid to report it because if you report it you are suppose to write a report to the manager why they are damage the aircraft…	avoidance of paperwork		
…we switch the thing off, or we reset it, or we download it, and then it is perfect again, but they haven't got the patience because there is people who get what they said..	passengers not patient with technology	Passengers	
…we switch the thing off, or we reset it, or we download it, and then it is perfect again, but they haven't got the patience because there is people who get what they said..	passengers not techno savvy		
…if you have a clean working environment I think you" be a whole lot happier, instead of coming to a scrappy garage where things are lying all over the place …	poor aesthetic work environment	Unpleasant Aesthetic Work Environment	Employee Motivation
…first of all the tea room we are in at the moment must be fixed up. I don't know, if you want to have a cup of tea and sitting on a chair where the sponges are coming out, its not all that comfortable…	uncomfortable aesthetic environment		
…the canteen that we have here is not all that clean, the food is not that good and their other thing is they are not open all the time, they work hours that suits themselves not the guys that work shifts…	uncomfortable aesthetic environment		
…I've been that tea room now for the last fifteen years, it's a disgrace, you must look at the chairs we got there, it is a disgrace, can you believe it, he doesn't even want to spend money for the trimmer…	aesthetic work environment not pleasant and desirable		
…because people that come from overseas come here, like the Lufthansa blokes, when they say they come to my tea room they say yessis an, what is this. Now that is bad!...	Aesthetic work environment is not desirable or pleasant		

Dialogue	Primary Error Attributions	
…because its changed, the blacks think the whites must pick it up now, that is what is happening…	racial attitudes	Class and Race Issues
…I've been to his house now, but other white people, they don't want to talk to him, but he is a friend. You will see some of these blokes that you will interview, how they are, there's plenty of them I tell you.	Racism and racist attitudes	
…if you talk to the blacks now, you see how many rubbish bags you see at the side of the road, they too lazy to keep it at their place or they missed it, and now bump it at another place. They say its alright, it creates work for others, that's their mentality now...	racial beliefs and attitudes	
…he'll tell you shit. He'll tell you that your job is nothing…	employee class attitudes to each other	
…Race issues is always there you know…if I can go to the toilet you find that the mechanic already took the stand…	class issues between the mechanics and cleaners	
…usually they are the mechanics and the mechanics are usually wise you know…	role modelling of higher class trades	
…now they starting to try and fire us next year. Now the union works with the managers here, now 350 people resigned from my union and went to this other union.	impending retrenchments	Shifts and Retrenchments
…I don't know if you heard about them, they will not change our shifts, especially the shift where…	company decision to change shifts	
…there is things now in the company about they want to change our shifts to a different thing and 90 percent of the people doesn't want to work that, so that can contribute to…	company decision to change shifts	
…now they starting to try and fire us next year. Now the union works with the managers here, now 350 people resigned from my union and went to this other union.	dissatisfaction with union	
…I would say that the company, that the managers must thank the people more often that is another thing…	workers not recognised for efforts	Recognition and Reward
…if the aircraft is out on time, you will never, ever, hear a manager come talk to us and say thank you for doing your work…	workers not recognised for efforts	
…especially from a manager or a boss, that is one thing I think must happen here…	workers not recognised for efforts	
…they don't get acknowledgement for what they do…	lack of recognition	
…you not going to be rewarded for anything you put yourself into…	lack of recognition	
…he is so fed up because of this qualifications and same pay, it's the same about a trimmer, what must he learn, he gets the same pay…	Beliefs about relationship between trade and salary	
…you see if a trimmer talk to you, he says he studied also, he can also give you maybe a kuk story…	Beliefs about relationship between trade and salary	

Dialogue	Primary Error Attributions		
…that we have been doing it for twenty years, why should we change now…	Old habits	Old Habits and Way of Work	Employee Culture
…I don't think that people realise that times change, technology changes, and that the new equipment we have now is more hazardous than the old equipment…	Old Habits		
…processes that have changed now and might effect them differently to what they have been currently exposed to…	Old Habits		
…maybe those older people, when they started working there was no safety cause nothing and if you start to tell a person about safety while he got thirty years working here it is quite difficult for him to understand…	resistance to changing rules regarding safety due to experience		
…they say haai I got 20 years smoking inside hear in this kitchen you see…	resistance to change habits in accordance with new rules and laws		
…you know he hasn't got time for this, or he's showing around obviously to get the job done, or he just doesn't give damn…	Don't care attitudes	Negative Attitudes	
…he still got an arrogant attitude to safety and all that and that they are more focused on the work…	Negative attitudes to safety		
…I will not say that they'll compromise on their maintenance but maybe on other aspects they might, like there is a puddle of oil lying there and instead of just cleaning it up they'll say stuff it…	Don't care attitudes		
…so then people don't focus or they are irritated and they don't want to perform what they should, I think that might give a don't care attitude…	Negative Employee attitudes		
…whether it's arrogance or they don't care or its too time consuming to fetch equipment, whatever the case…	Attitudes		
…I think if you change a negative attitude to a positive attitude, of course it will improve safety conditions…	negative attitudes impact on safety		
…that a lot of people don't look after things like that to me, that impacts on the organisations profitability and safety and of course quality of maintenance…	don't care attitudes		
…when are you going to see your wife and children and that sort of things, it can be that make the people negative you know…	employee negativity		
…if there is going to be more people here, there is still going to be some guys that don't give a shit. I don't want to use the goggle and don't give a shit about safety…	poor employee safety attitudes		
…I think once again it is going to make the person negative attitude wise, and then he is going to make errors. If you not happy then you going to have problems…	negative employee attitudes		
…it makes the people negative…	negative employee motivation and attitudes		
maybe he says no, its not my job to clean up, who ever it is or he messed up…	not taking responsibility		
…I don't think they take accountability, they think they'll be victimised or disciplined if they report it, you've had instances…	not taking accountability		

Dialogue	Primary Error Attributions	
…now everybody in their mind frame, this is my job, I got to get this done and that's what they are focused on…	Individualism	Individualism
…they don't interconnect and say what are you doing, how is my job going to impact on yours, you know…	Individualism	
…everybody else is affected by his actions, he must take that into consideration as well as his own personal safety so anything he does that might affect somebody else…	poor consideration for fellow worker	
…speeding I also think is a big problem, these people they rush around, they don't consider the other people in that work area, they don't follow procedures, driving with the lights off at night…	lack of consideration for fellow workers	
…I looked around and saw some people but they all disappeared…	lack of consideration for fellow workers	
…they nearly bliksemmed the guy because they stole it man, if you got a GPU on your shift, how can these blokes take it…	lack of consideration for fellow worker	
…by the time the mechanic arranged a GPU it takes another hour, now the mechanic says to me, hey when can I start with my work, I say when I'm finished with my work, as easy as that because I started first...	first come first serve attitudes	
…they see this thing there, and then they switch the power off, and we start right in the front, if that didn't take half of the content we started right in the front again…	lack of consideration for fellow workers	
…you not going to help him with his trouble, and he is going to take a very long time to do his job, you will not jump in and help him to quickly get the job done…	individualism	
…I'm still busy. Even you, you are supposed to be doing the work inside the aircraft but he refuse to give you the way…	lack of consideration for fellow worker	
…I don't have a clue, maybe they are lazy, I don't know…	laziness	Laziness
…because some bloke was too lazy to pick it up…	laziness	
…you draw about three reflectors but you only use two, so with the spare one you too lazy, put it in your cupboard, it disappears…	laziness	
…with the few people that is not happy about working here, I would still think that it is going to be lazy, or that's what it is…	employee laziness	
…he forgot it, or he's says he forgot it, that's his excuse, but he is lazy…	laziness	

Dialogue	Primary Error Attributions	
…they say the company doesn't look after me, so I will not look after the company, so they will not go the extra distance to, you know…	not going the extra mile	Not Going the Extra Mile
…and you tell your team leader and he tells you its not his job either…	unwillingness to take responsibility and go the extra mile	
…I can find the bottle is broken inside the aircraft I can take it and throw it away in the dustbin or the stand it is broken in the way I can take it to were it suppose to be…	employee unwillingness to go the extra mile	
…some body if he see some thing that is wrong he thinks if he can take it out maybe he is just stupid…	negative peer attitudes to going the extra mile	
…it is not only my responsibility, there are other stake holders, that actually result I that lying there, but I'm expected because I'm taking charge of the aircraft to clean up the area. I know the people think that why should I do it, I didn't throw it there, so there again we have an attitude problem...	not going the extra mile	
…you so stupid , you are doing extra work…	negative peer attitudes to going the extra mile	
…look, if a bloke tell you do this, you do it, but he will not do it right because it is not his job…	employee unwillingness to go extra mile	
…nobody will do extra work, nobody…	employee unwillingness to go extra mile	
…so that could lead to negatives you know, the changes, so that they become less worried about the company…	Reduced employee commitment	Dwindling motivation
…some guys have got the lighty playing rugby on every second Saturday, so what is he going to do, he's going to take leave every second Saturday, so what going to happen..	reduced employee commitment to make things work	
…it will not make them do silly things I would say, but it wouldn't give them a sense of wellness and to feel joyful at work. You get guys that are a bit down because they are hungry maybe or because…we are all human aren't we…	reduced motivation	
…with the few people that is not happy about working here, I would still think that it is going to be lazy, or that's what it is…	employee unhappiness	
…one thing that they can do is to motivate the team leader and then the tam leader can motivate us and tell us to get the job done…	poor employee motivation	
…they not happy, but then what can they do. You see its his word, if he wants a smoke break, it's a smoke break…	Employee unhappiness and demotivation	
…you can't believe it man, and the people are getting more and more frustrated, I can see it…	worker/employee frustration	
…there is no trots, there is no pride anymore…	lack of pride for company amongst employees	
…he is so fed up because of this qualifications and same pay, it's the same about a trimmer, what must he learn, he gets the same pay…	dwindling employee motivation	
…instead of completing the job in five minutes, it will now take you fifteen minutes…because they now dragging it on…	poor employee motivation	
…you know how this bloke must feel now who knows nothing about avionics and is trying…	employee motivation	

Dialogue	Primary Error Attributions	
…I think that the people are not going to make it work, I think that people are going to really, really, aren't going to work by the book.	employee vengeance	Vengeance
…I think that people are going to take their time and cause delays, that what I think…	employee vengeance	
…I lost out, now they took somebody that didn't come to work, now next time I'm going to get his ass whipped because if there is something that has to be done I'm just going to not worry about it. I'm just going to leave it…	vengeance due to feeling of being unfairly treated	
…but it looks ridiculous, to clean reading lights heads and put a mask on...	Ego	Ego and Bravado
…there is a lot of politics, or how can I say, happening under the surface in the crews. The one always want to make the other one look bad, or maybe he wants to impress the team leader to get himself …	Ego	
…trying to impress to show how you can do the job within the prescribed time…	ego	
…like let other people think he is a sissy now…	ego	
…this guy he just took his shirt off, dropped it there and go lie down on the cold floor with his back there, steam coming out of his mouth…	bravado	
…the times that I went on top of the wing, I was never pressed for time, it is easier to get the stand and get on top there, and there wasn't even the feeling of trying to impress anybody…	ego	
…remember the guy I told you about with the burns on his hand. I think he did go report it. And even him, he did not want any one to know that he did report it, behind our backs he went to report it…	embarrassment influenced by prominent bravado attitudes	
…there is a lot of politics, or how can I say, happening under the surface in the crews. The one always want to make the other one look bad, or maybe he wants to impress the team leader to get himself …	interpersonal conflict	Conflict
…financial problems, you know, personal factors, problems at home and financial problems, umm.. Things like that also have a underlying impact on the way you perform at work…	personal/domestic problems	
…we focus so much on that, on your little problems that you tend to overlook some important things and get frustrated…	domestic problems leads to reduced focus on work	

Dialogue	Primary Error Attributions	
…well ignorance is the one thing that I've come across and the other thing is that people don't know to the full extent what chemicals can actually do to you…	Ignorance about side effects of chemicals	Ignorance regarding safety
…the supervisor give you to use amazol, because amazol is too slow to clean…	chemicals seen as ineffective	
…they can have a deeper understanding of why we do what we do, and learn to protect themselves a bit better maybe…	superficial understandings of safety	
…not realising he is actually causing harm to himself, more complications than the odd times he hits the cartridge on the sides of the wall of the fuel tank…	Not realising the implications of his actions	
…maybe I think this people need proper education to be educated about these things…	need for further education	
…Its proper education… there suppose to be they need the proper education…	require proper education	
…follow ups is needed…	follow up education is required	
…ignorance is the big thing…	employee ignorance	
…they need follow ups these courses…	follow up education is require	
…I still say he is ignorant…	employee ignorance	
…some of them have become so sensitised now that what one person might see as dangerous level, the other person might say that I can't even smell anything…	Desensitised to chemical effects	
…I don't think they would jeopardise their personnel but they might not also place an emphasis on wearing it…	sufficient emphasis not placed in safety	
…many times people just don't think about safety, it happens a lot…	safety is not a culture	
…if you have time to go to the locker to pick it up, now they push you for time, now what the guys do is to just throw the chemicals there and tell you now I feel like heaven and they'll laugh about it…	humour used to mask errors	
…biggest ones is we don't have the time and we don't have the proper education…	lack of knowledge	Knowledge and Experience
…you get new guys, the apprentices coming in, all of them doesn't have the computer training that maybe I, or you, or whoever else has…	lack of proper induction and training for apprentices	
…most of the time it is because they don't have any experience, my manager, he calls us because the okes were too long on leave, or they didn't know, or they didn't fly with this system for a few months…	lack of experience to troubleshoot	
…that is because of experience, I would say the longer you work…	lack of experience	
…if you don't do the follow up those people forget what you have taught…	practical implementation to ingrain theory learnt in education is required	
…people focus on their core function and when it comes to doing investigation then they sort of forget about what they learned, they actually don't realise that this could affect us all…	not aware of bigger picture	
…somebody is going to have to carry you…	need for assistance	

Dialogue	Primary Error Attributions		
…then you got the painted floor, they've got protective paint on the floor so if you slip and so on, you slip on that if it is wet...	painted floor slippery when wet	Human Factors	
…you don't have time to go to the store, sometimes you work outside here, the store is that side and you don't have a vehicle…	distance to store		
…you turn around and you bump your head, we'll I can't say that is the aircrafts fault that is my fault for not paying attention…	lack of situational awareness		
…people not concentrating I suppose cause these errors…	lack of concentration		
…they see this thing there, and then they switch the power off, and we start right in the front, if that didn't take half of the content we started right in the front again…	lack of situational awareness		
…Naturally other people they are careless…	carelessness is a natural human tendency		
…It's the carelessness of we as the workers …… we are suppose to take care when we are working in the small place…	employee carelessness		
…the carelessness of the workers…	employee carelessness		
…they all seem to do like chemical and maintenance applications at the same time instead of trying to stagger it a bit, the only people that are doing chemical applications are there at a certain time...	Work tasks are not planned in a staggered manner according to application	Inadequate Planning	Managerial Issues
…planning could improve, that is another point which I feel if I had the power, I'd try and plan it properly, get people involved…	People not involved in planning		
…no time to have it vented and bad planning…	poor planning		
…You see the manager is always sitting in side the office, he doesn't see what's happening, its not good…	managers not aware of situation on the ground		
…we used to have a bloke who used to at those things if it is there, and they what you call it, they've scrapped that position now…	Positions scrapped but responsibilities not reallocated		
…you are already pressed for time and somebody else will come put pressure on you…	not considering limiting factors in decision making		
…he should communicate and also not only consider himself…	insufficient Communication	Poor Communica	
…I think things have changed without consultation, I remember a while back when I was myself in the hangar, they actually brought in a late afternoon shift…	Lack of management consultation		
…I do know a lot of people that do have negative or are exposed to some negative publicity which we've had and stories about management changes that affect personnel…a lot of people are unhappy with that…	rumours in the work environment		

Dialogue	Primary Error Attributions	
…I think state the facts but don't do what we've been exposed to, what I feel is like a lot of negative publicity. Yes, we want to know what's going on out there but we really don't want to know like the nitty gritty…	facts not communicated adequately	ation and Consultation
…communication, that's another thing. Talk to people, ask them what would they do to assist , you know…	inefficient communication	
…management always want to dictate policies but they never ask the workers what do they think…	Management dictates policy without consultation	
…they don't communicate, they must have a brain storming session, why do you feel that, why don't you do this, or why don't you do this…	poor communication and feedback	
…talk, communicate with the people, say I can't do this but I would like you guys to assist me, you know, discuss it. Maybe you'll come out with solutions that you never even figured out before…	poor communication	
…If I'm working with a chemical I just do my work and the other one who's working with the engine is suppose to change his work…	non communication of dangerous chemicals in use	
…there is a book and the manager hides it away and doesn't say you know you have a right to see …if he doesn't tell you or you are not made aware of it you will never know…	managers not open about employees rights	Management Motives
…you see these guys also have rights, so long as they don't know about it, you know, so they don't expose them to it…	negative management motives	
…they said they will cater for us but that doesn't happen at all…	broken promises	
…Now all these people here, they clique to each other. This morning a colleague showed me this bloke, this black bloke who use to be here from cell c, the same as this Indian bloke that resigned here on Friday. Its money, its all money…	senior management serving their own interests	
…they don't worry about us. I mean if the company has no money how can these buggers get increases like this…	Management don't care about workers	
…as long as he can buy a chair for his office, for the people that come and visit him…	managers selfishness	
…so long as that manager gets a car port for his car there is no money…	money used for managers own priorities	
…if he doesn't use that money, he can take it and put it in his pocket, that's it…	incentives to save money gives manager a bonus	
…that's it, if he can save on his budget, he gets money in his pocket…	incentives to save money gives manager a bonus	

Dialogue	Primary Error Attributions	
…he gets a thirteenth cheque, he gets a thirteenth plus a fourteenth cheque…	Manager saves money at expense of staff need for bonus cheques	
…Maybe the supervisor… maybe if he is you friend the supervisor he just keep quite…	supervisor favouritism toward certain employees	
…I feel that why they don't show and respect to their workers, they think he is just a machine and he'll do as I say, but you got to look after a machine because of it fails…	employees not respected and treated as a valuable resource	
…you can't go above them, they will always put you down. If they choose that person there is going to take you by the hand and he is going to…	Management favouritist attitudes	
…it is just a problem of unfairness…	management is unfair	
…personally I know the managers here are overworked and underpaid. You know that they got so much on their plate that they feel that they can't deal with any more…	Management overworked	Workload
…I think a lot of the times managers they might be overworked but then I think they don't consider the rest of the team…	management workload	
…I feel they must take accountability for what they are still supposed to do but they can at least delegate some of their responsibilities…	poor delegation of duties	Managerial Skills
…I've been exposed to where managers try to take problems away from the workers and eventually at the end of the day the manager can't get no work done…	poor management delegation of duties	
…I think a lot of the time management feels these okes aren't competent enough to deal with it...	Management not confident of staff abilities	
…they could maybe I feel take on a little bit of more responsibility…	poor management delegation	
…the team leader feels now I'm overworked, I mean some of your staff members can do something…	staff members not utilised as leadership resource	
…shows me that there is a lack of understanding and education on the managers part you know…	Manager not adequately skilled	
…I think that maybe it is the supervisors and the managers that are negative and causing us to be negative…	supervisors and management not motivated and encouraging	
…because they record it now from the TV cameras and they can find you now…	previous lack of supervision	Shortcomings regarding Supervision
…we had a manager saying that please speak to the guys, there is too many IOD cases…	requests not to report IOD cases	
…they asked us, please don't go and report everything that has happened to you whatever…	requests not to report IOD cases	
…but the supervisor is suppose to see those people that are using the wrong chemical…	inadequate supervision	
…Maybe you are fucking around with the supervisor… ja… you can get injured …	supervisor authority blurred	
…even myself if it is that my friend is the supervisor I usually tell him haai man Fuck you! Man you see…	supervisor authority diminished	
…there is always another bloke who will do it for him…	team loafing	
…it is the supervisor's responsibility to go to the stores and bring the mask…	supervisors not fulfilling required responsibilities	
…they need some one to push them to do that…	insufficient pressure to abide by regulations	
…they ignore the rules in fact they need somebody to push them…	insufficient pressure to abide by regulations	

Dialogue	Primary Error Attributions	
…They are supposed to have a person who is always looking at them…	supervision required to implement education	
…I don't think there is enough training and why I tell you is that there are certain people trained that are chosen and I sometimes feel that the wrong people are chosen...	wrong people are selected for safety training	
…a lot of times they have the attitude, the management, ought to be more careful because he doesn't do anything, like he doesn't want to go through the lengths of investigation or find a cause…	management laziness	
…I feel they must take accountability for what they are still supposed to do but they can at least delegate some of their responsibilities…	Management don't take full accountability for their roles and responsibilities	
…we don't usually use this thing unless there is an inspector running around, or someone that might see you. I've seen a guy who would take half an hour to an hour to get the equipment ready…	using equipment to appease inspectors	
…some of the guys will not have such a tough workload for the day, some of them will have it easy, some of them will suffer a bit…	work team loafing	
…if the store man doesn't say look, this is broken, then its too bad…	store man not fully aware of equipment serviceability	
…and those people if you report something to them, they take time to come and repair it…	time loss due to inefficient outsourcing	Outsourcing
…they are going to take three to four days to fix that vacuum cleaner…	time loss due to inefficient outsourcing	
…but the clauses in that paper work now, they can't supply you, they don't get a penalty, till they renew this contract again…	inadequate contract with outsource company	
…if they can get the… that contract out and the company do things for its self I think things can be solved…	inefficient outsourcing company	
…it doesn't need to loose a lot of money… they need profit…	outsourcing company maintains own profitability	

Appendix F

Maintenance Staff Focus Groups- Primary Error Attribution Themes

Dialogue	Primary Error Attributions		
…I'm expected to be wide eyed willy winky you know, it can't happen cause when you are expected to go to bed, I can tell you from experience that when I go to bed and put my head on the pillow, I don't fall asleep…	Shift work: Fatigue	Effects	Shiftwork
…total swings of shifts and all that contributes to you being tired, you not being able to focus…	fatigue and lack of focus		
…I'm getting sick and my body immune system takes a knock and you know it is all contributing factors…	Shift work: Immune Levels		
…he used to work in a shift environment, the problem I think that the company has not set out with an industrial psychologist and set out a proper program…	shift work not adequately designed	Design	
…but if they consult maybe a psychologist or a industrial psychologist to work it out maybe better, umm…if the whole working environment was better, I think that the people will be a whole lot more loyal.	poorly designed shift schedule		
…this company doesn't cater for your family life, and that is within our section. Think that two in three people or four in five people are on their second wives because of divorce if that is an indication...	impact on family life not considered by company		
…that is why I decided to leave the shift environment…I just did it for the family life, in majors you work two weeks day shifts which is seven to three and then the third week you work from 12 to eight…	shift work impact on family life		
…you know is he tired, is he overworked, you know there is a lot of things like that…	workload		

Any external certification is not recognised in this institution. Nothing extra is rewarded.	enhancing skills not rewarded	Reward	Recognition and Reward
…you have to have a minimum of two courses and you have reached you limit of earning…	low reward for enhancing skills		
…at the end of the day I'm putting my job on the line to say that is where I am going and yet you are not recognised…you are taking on further responsibilities and you should be getting compensated for that responsibility…	responsibility not compensated for		
…I don't think that it is a justifiable increment where you say listen, its worth me having four courses allowing me to sign-off four or five airplanes as flyable, is not there…	responsibility not rewarded		
…in the last five or ten years, a lot of expertise were lost by okes leaving the company and I think that a lot of loyalty was lost due to a number of reasons.	loss of expertise		
company has also one of the highest standards in the technical environment…its not the pilot that is pulling, it's the guy at the back behind the saddles. No recognition.	lack of recognition	Recognition	
…sometimes you work your ass off and then there is a lazy there and a manager will give him a pat on the back, and no matter how hard you work it is only a certain blue eyed boy that will get the thank you for this…	unjust recognition		

Dialogue	Primary Error Attributions		
…you are not always given recognition for a job well done, a thank you for doing this for me or whatever it is…	lack of recognition		
… the person who performed the best at the end of the course was usually given a tie or a little bag as little token of appreciation…	lack of recognition		
…the last few courses those were taken away, nobody knows, apparently for budget reasons…	budget cutting recognition incentives		
…you get a lot of people that was on course that are competitive and say let me go up there and be the best, to show I earned this thing, and what you end up with, nothing...	lack of incentives		
…he can't take that plane out, he got no authority to take that plane out, yet we are not given the same kind of recognition as them, we are just as capable…	injustice in recognition across disciplines		
…salary for one. If you look at the increases for this company for the last ten years was not up to the inflation rate.	below inflation increases	Injustice	
…to become pilot it is easy, its even easier than our courses. They come with 35, 40 grand a month and he doesn't know a thing…	injustice in salary between disciplines		
…the company, they want stuff, you must bend over backwards, we all have children and families at home…	unsatisfactory company reciprocation		
…then you hear of other sections like the pilots end up with salaries of 50 and 20 percent increases on their types of salaries and then you think hang on, the company is paying a lot more towards them at the drop of a hat…	injustice across disciplines		

…years back there was a lot of loyal people at this specific company, and loyalty gets bought by a lot of things	decreasing loyalty	Loyalty	Employee Motivation
…in the last five or ten years, a lot of expertise were lost by okes leaving the company and I think that a lot of loyalty was lost due to a number of reasons.	decreasing loyalty		
There is no motivation in this place.	poor motivation		
I'd say no motivation.	poor motivation		
…when you go to the tea room let it be neat and clean, let the toilets be working, you understand…paint the bloody walls, from white they going to like cream…I mean put a pot plant here and there, you know what I mean…	Unsatisfactory aesthetic work environment	Environment	
…but if they consult maybe a psychologist or a industrial psychologist to work it out maybe better, umm…if the whole working environment was better, I think that the people will be a whole lot more loyal.	unsatisfactory work environment		
…some people have political beliefs as well, some people are not happy working with or amongst non-whites	racial attitudes	Discrimination	
…that's also a contribution factor for a loss of loyalty because now if somebody becomes…a non-white that is in a position of power and we don't believe in listening to non-white people…	racial attitudes		
…when I started my apprenticeship, they guy told me, know you here on affirmative action, so I said fine…the only thing they could have told me is they think I cheated, but if they looked through my record they would have seen that look I studied a three years national diploma...	racial attitudes		

Dialogue	Primary Error Attributions		
…but if a white guy, it would have been the, no this guy is intelligent, or this guy is this or that and every time it is the same routine that you see there is not like merit in fairness…	racial discrimination		
…if you don't know the person well, this person doesn't like you then you have to go learn it on your own and read it from a manual where if another guy comes and they'll pump him with information…	discrimination with respect to on the job training		
…they must have 100 people to apply…must actual make the okes that does the merit rating must only have the numbers in the corners, they'll say ok,…we'll choose the best oke…	selections not based on merit and ability		
…whereby in another section like in mechanics, they don't get the opportunity to go and fix it.	certain employees not given opportunities to enhance skills		
…there is about 70% or 80 % of mechanical people that doesn't have one course on there name or certification…	poor qualifications	Perceptions	
…so that oppressed all the people of colour which was wrong, but now they turned it around to the other side, so now white males are like in trouble or on the bottom of the food chain if you can call it that…	negative perceptions of affirmative action		
…except when it is a personal level, like say if you are the team leader's blue eyed boy or whatever he will tell you…yes well done, or well done for the course.	favouritism		
…and favouritism as well, in this company I noticed maybe in other companies as well its who you know. If you know somebody well you can get promoted without having the proper paperwork and without having the proper this and the proper that…	nepotism		
…a big problem might be cultures you know, a lot of people don't understand other peoples cultures.	cultural differences		
…when you speak to me in Afrikaans you must go very slowly because I can't understand it.	second language communication		
…because he grew up speaking Afrikaans and I grew up speaking English. It is natural tendency and to get rid of it, that will take time	second language ability		
…you don't have anything to show for your commitment and dedication and people were told sorry the budget does not allow us to spend 15 rand more…and they will spend a lot of money on other things that are totally unnecessary...	hypocrisy in budget policy	Budget	Management
....so he rather cut out the human factors and certain other factors to try and make the books balance, so that doesn't make sense.	low priority of human factors in budget		
…there are some people that will be inclined toward management… toward finance, toward people, and if you carry out the proper way of doing things…send them for the appropriate training and in that way we will motivate them to aspire not just to a technicians or a team leader, you motivate them to aspire...	Poor management development programme	inefficiency	
We are technically oriented, that is why when we do aptitude tests it is a technical aptitude and we perform well in these tests...now you make me do the books, I can't do the books, it wasn't part of our natural thing, but with the proper training I can make better.	inadequate managerial training to promoted technicians		

Dialogue	Primary Error Attributions		
…actually the way they manage, they manage us so that we are not desperate…	mediocre management		
…we blame the environment, we blame the system, but no body in this environment has taken the time or invested money to really rectify it	management not applying mind		
....nobody looks at why the task cannot be accomplished in that time...	limitations not considered and rectified		
...if every manager does what he suppose to do....	inefficient management		
...the manager doesn't want to budget too much of money because then it looks bad on him that he doesn't want to budget...	incentivising of saving	Mistrust	
...selling of equipment to show a profit, so liquid profit but not fixed assets...	historical managerial decisions		
…if managers were more fair and judged you as persons…I think you should actually judge a person on his ability to work, judge him on work you understand…	Unfair management judgements of workers		
That person that is like they will teach him a work but secretly.	mistrust of management		
…now the stressful situation that you already got gets bigger and bigger, thereby impacting on your health…	stress related illness	Illness	Stress
…because of a stressful life, that is why so many people get heart attacks and strokes here, you understand.	stress related illness		
…with the highest divorce rate in this company…	stress on family life	Effects on Family	
…the highest divorce rate in this department, in this company most of the guys are on there second or third wives…	stress on family life		
If that is not an indication of the toll that it takes on your family life then I don't know what is!	stress on family life		
…had a problem at home and then you come to work with that problem and other factors add to you and you not actually concentrating on your work itself…	Home/work life transfer		
..did you make the right choice, because if you made the wrong choice and the aircraft flew, then you got disciplinary procedures, because they now question your ability…	second thoughts on pressure choices		
…now in ten minutes you must diagnose what this monkey has done to that system, and fix it and repair it and send the aircraft in ten minutes…	Time Pressure		
Discipline as well, you find that not having tooling and somebody has got it and they'll finish it tomorrow and instead of taking it back to the store to go and get it again tomorrow, I rather take it home...	poor discipline abiding by tooling rules		
....I think that it is a bit of human nature as well to be a bit lazy when you got something...	human nature		

Appendix G

Team Leader Interviews- Primary Error Attribution Themes

Dialogue	Primary Error Attributions	
I feel that some of the team leaders or some of the SLT's, who are predominantly white at the moment, are forceful with the non whites and they don't train these people	Racial Discrimination in On the Job Training	On the Job Training and Supervision
…when you have direct aircraft related training and that is the reason errors occur, because junior guys obviously are the non-white people that walk into crews and they are not being trained, obviously not welcome and they are not being supervised	Racial Discrimination wrt supervision	
…as a challenge for them everyday and this challenge is obviously something that they have not had any experience in, and the guys with experience are not showing them that little bit extra	Racial Discrimination wrt supervision and guidance	
…the non-whites are not being promoted because they don't have the experience	Lack of exposure	
…where as you have a new youngster, a white guy, they say boetie don't worry I'm going to take care of you…	Racial Discrimination wrt Mentorship	
Now you can go to other crews in my section and you will find that non-white guys will come through, who have not even got an aircraft course and don't even have half the knowledge as the guys who have come through in my section	Racial Discrimination wrt encouragement	
…the training and development side of our company does not look at statistics when it comes to non whites, that is also one of the reasons why these non-white guys aren't being trained	Racial Discrimination wrt selection for training	Training Selection and Opportunities
If you as a non white want to get on a course, you have to fight and you have to get a white off, to be given an opportunity	Racial Discrimination wrt selection for training	
…but they are saying they are looking for capability, but obviously they haven't done their own work to see who is capable of doing the stuff…	Weaknesses regarding selection for training	
...two of those guys did not make the course, but he had sent those guys on the course…	Weaknesses regarding selection for training	
…it depends on whose side you're on, if you never been sent then you say it is unfair, you have been sent twice or thrice…	Injustices in selection for training	
…they were sent on courses, not sent on courses…	Injustices in sending employees for training	
…get to the management of each section or the relevant sections, that is, communicate with them especially with respect to the non-white people, providing them with training, bring them up to level.	Management discrimination regarding training of non-whites	
…it depends on where you are, which department you are in, You might never get to be sent on a course, for some people that will be disillusioning.	Lack of equal opportunities for training	
I had to be here three years before I went on my first course, on which they dumped me in a 747 400 which was the toughest course that we had at that stage	set up for failure	
I acknowledged what the situation is between the whites and the non-whites and what is happening here, and he was quite adamant, until I told him that I have my SLT and then he said no, you should be on a course and he changed it.	Racial Discrimination wrt Training opportunities	
…white guys who do not have certification, those guys are the guys who are still being given opportunities to go on courses.	Racial discrimination wrt Opportunities	

Dialogue	Primary Error Attributions	
What they done was, when the first course came out, I saw ten white guys on that course…	Racial discrimination wrt Training selection	
I worked without any greeting, without any respect for the first three months, I worked to earn my self my position, to earn the respect of these guys…	Blacks having to prove themselves	Racial Attitudes
And all of those guys who have worked in other crews have always been condemned, told how useless they are. Why are they useless, why are the guys who work with me not useless.	Racial Attitudes	
…obviously, look at the racist factor involved here	racism	
…I know on the racist factor I can give you, I can tell you a lot of things…	racism	
…the white guys make a flop up and it is not seen, suddenly you didn't hear it, you didn't see it, and a non-white makes a mess up or a bugger up then the whole airline knows…	Racially discriminating culture	
I feel that some of the team leaders or some of the SLT's, who are predominantly white at the moment, are forceful with the non whites and they don't train these people	Racial Attitudes	
…it is one of the steps that currently being used as a weapon so as to say, when errors are being made it is that these guys are not doing their job	blame the blacks	
a more white dominated area…sort of leads to people that are obviously non-white…it sort of leads to error because they sort of feel inferior	Inferiority Complex of Black Staff	
…we have an inferiority complex, and I think that is one of the reasons that errors are being conducted or made...	Inferiority Complex of Black Staff	
…not at any stage they looked at this as becoming a problem psychologically…	Lack of consideration for staff from management	Consideration for staff
you need to have management that are capable of respect, and say I need to look after these people because they are going out of their way...	Lack of management consideration for staff	
…they don't look at it as a point of stress in your life, how does it impact on your social life, or how does it impact on you family life at all.	Lack of management consideration for staff	
…they come out once in a while, but they don't see it as a problem for them. But we on a everyday basis are there but they don't think of the consequences on us daily.	Lack of consideration for staff	
…I think they in the wrong era, the wrong type of work. They not doing what they should be doing.	Individuals not suited to job	Management style and abilities
…there is some guy that can not handle the pressure and they are in seniority positions…	poor person job fit	
…people must be willing to accept responsibility, people if you never give them any responsibility then you not going to get a very happy workforce.	Unwillingness to accept or delegate responsibility	
…there are time issues but they are corrected eventually.	Time delays in correcting documentation errors	
…you've got to help him, obviously show him and say listen, you have to go forward, I'm telling you to go forward or listen, you have to go forward...	Poor mentorship	
…he's driving around with a two hundred or three hundred thousand rand motor car, but he is too stingy or he doesn't have the money to spend two thousand rand on a hands free kit which is law. The law started here!	Higher management not role modelling	

Dialogue	Primary Error Attributions	
…but you have got a lot of the old mentality here, where you have got some guys with twenty years experience and some guys with thirty years experience…they only had to come in and shift the radio and that was it.	Very Experienced team leaders Inability to cope with changing environment	
…you could get inter crew competition, like certain crews do things quicker than other crews because they got more experienced people they've done it more times, that does happen…	Managing crew resource differences	
…from what you hear, from what you see around you, from your observations on the management, the media and so on.	Lack of communication between management and employees	Communication
…I would try to get rid of the idea that there is a them and us…	Dichotomy between managers and workers	
…there has always been a problem with work instructions, they just have never been able to…you always hear that there are your work instructions of management…	Work instructions not openly available	
…today if you lucky you might bet through an email, so there is none of that personal contact...	Lack of personal contact between management and employees	
…I think what is happening there is a failure of communications within themselves…	Inefficient communication	
That's it, Decisions are just enforced with no consultation.	Decisions enforced without consultation	
…Now suddenly this appears from nowhere, and you got this on your workload, it shouldn't be like that, you should be a step ahead, you should know where you are going to…	Inefficient planning	Inefficient Planning
…you not educated on such matters, you would not know what is dangerous and what is not.	Limited awareness about hazards	
…planning is important, and planning is one of our biggest problems	inefficient planning	
…I think that one of our big factors is planning in this company. They just don't schedule things…	Inefficient planning	
…those guys are all willing to take these days what we call a commercial risk, while it goes well, so be it, and we'll take the punishment when the time comes.	Management taking a commercial risk	
Because people don't do their jobs and there is probably no money.	Financial Pressures	
…no driver around…they haven't trained enough of them, maybe they trained four of them and they are on a different shift…	Sufficient people not trained with skill	
…no driver around…they haven't trained enough of them, maybe they trained four of them and they are on a different shift…	Members with skill not planned and allocated to be on a shift	
…there is too much manpower on one aircraft…	poor work task planning	
…I want to clean, electrician he want to put in a wire, the mechanics needs to do something you see…	poor work task planning	
…No I wouldn't say deliberately, its just an oversight, or the disregard for the end result that it can create…	Lack of foresight to implications	

Dialogue	Primary Error Attributions	
Very bad because you have to motivate the oke for him to come do the best job he can do..	Low Employee motivation	Poor Employee Motivation
…if they don't have to do anything, they'll do nothing.	low employee motivation	
…it demolarises you man, it demolarises you, because look what does it do, you feel inferior, you feel like you are scared, even if the guys offers you a course afterwards you think ah, I'm not capable…you scared…	Demolarisation and lack of confidence	
…people are negative working in the company, but I don't want you to write it…cause like I say, it is not a good thing, but at least…I work everyday with it…people are always negative.	Employee motivation is negative	
…you know when the worker is happy, your company immediately profits, if you workers is not happy, it goes down for a fall.	Worker unhappiness	
…if you look at what was given in the beginning as travel facilities or perks that has also been watered down and those are all things that come through as a demotivating attitude…	Demotivated attitudes	
But anyway, I believe that is the attitude or demotivated attitude…ag…to hell with it!	Low employee motivation	
…when certain people once again don't give a damn…	Employee don't care attitudes	
…that definitely leads to the bad attitudes and the self discipline things, and that negatively impacts on work.	Negative attitudes	
…the biggest thing is that it does have an impact on mental attitude…	Negative impact on employee attitudes	
…That could be because of not being properly motivated	Low motivation	
…I believe it is demotivation by the company right here…	Employee demotivation	
See, that is the bottom line because most of the things is ummm, like the people are…what I'm telling you, people are negative…	low employee motivation	
As I told you, if you make the workforce happy, you win the whole company, 99.9 percent better.	Workforce unhappiness	
You see the main thing about pay is that the pilots get paid these ginormous salaries and everybody else gets little	Perceived salary injustice between disciplines	Perceived Injustices
…who gets to go overseas, who doesn't get to go overseas…	Injustices in utilising perks	
…pilots fly first class, we fly closet class…so our perks, it sucks, bottom line.	Perceived perks injustice between disciplines	
The responsibility that people carry and how they get paid is not right…	pay not aligned to level of responsibility	
…if you look at what was given in the beginning as travel facilities or perks that has also been watered down and those are all things that come through as a demotivating attitude…	Reduction of perks and travel facilities	
…you know lately we've all been told that there is about 400 technicians they want to get rid of.	Impending retrenchments	
That's easy, keep the promises that you've promised the people, treat them with dignity, not just as a number.	Management not keeping promises and treating workers with respect.	
Don't promise things and take it away again…	Management not keeping promises	
There is just one thing, salaries, its never getting paid on time…we always have to fight.	Employee dues not fulfilled by company	
Ja. Its like I say, between the pilots and ourselves, their salaries is like twice or three times ours…	Perceived salary injustice between disciplines	

Dialogue	Primary Error Attributions	
…the airline will go and sponsor a rugby team with travel facilities, but I can't even get those. I work for them but I can't even get those travel facilities…	Perceived injustice in spending priorities	
…how privileges and that have been dewarded…	Reduction in benefits	
80 percent of increases go to pilots and 20 percent to the rest of the airline	Perceived salary injustice between disciplines	
No. they never reward you for anything.	Lack of reward and recognition	Lack of Rewards and Recognition
They don't get rewarded	Lack of reward and recognition	
Because in our section, if you get two certifications or a hundred certifications you get the same money	Lack of reward for enhancing skills	
There is no knowledge improvement or nothing, they is no encouragement to do aircraft training, to say look, get your certifications, get licenses, there is nothing of that sort.	Staff not encouraged to up skill	
…I would go to these management people and say recognise those people…	Employees not recognised for their contribution	
When we started here, we had job security, you had your pay on time, negotiations, and you had you perks. Today you got no perks, no job security.	Lack of job security and perks	
They pay your salary and that's it	Lack of reward and recognition	
…there is also a lack of encouragement from the senior guys because they go for it, they use them as a weapon for their own gain, obviously, because as long as he is there, it goes on that way, I'm not going to bother to help him…	Lack of encouragement from seniors	
…the general pride of the airline, that's it, I believe that's the major cause of dissatisfaction of the airline. I've got to try and instil that in other people.	Lack of employee pride in company	Lack of Pride and Enthusiasm
…How much pride, how do you say…not pride…enthusiasm does that instil in a man.	Reduced Enthusiasm	
…not only pride in the airline, I mean pride in yourself, that's it, pride in life, that is what it comes down to…	Lack of pride	
…this is the thing that I fix, so you could instil a bit of pride in the family too, because they're also interested…	Loss of pride and passion	
…I'm not even allowed to bring a camera in here. Its little things like that. Those are the pride that the airline used to.	Loss of pride and passion	
…there's no pride in it, they don't think, lets use a weird phrase, outside the envelope…I could show you when it comes to peoples general interest, how many people here are interested in aviation, how many of them are real aviation buffs…its not a passion anymore...	Loss of pride and passion	
…if the aircraft is standing open in the rain why do we wait for certain people to come and close the door, what's to stop you rushing up there and closing the doors...	Not going the extra mile	
…you walk past in the hangar, there is a pile of components lying on the floor, they are lying in the rain. Does he first of all drag them out of the rain and say to somebody, hey! This is your department.	Not going the extra mile	
Not pride in their jobs, not proper time keeping, arriving to work late…	Lack of pride in jobs	

Dialogue	Primary Error Attributions	
…lets call it a career problem, because of the changes in the airline, certain people are now sidetracked to get to the top, so now you got those other guys who are left…	Lack of career opportunities	Growth Opportunities
…there is a whole bunch of youngsters over here, who are not going to be getting anywhere either and they are capable.	Lack of career opportunities	
…I'll take you to youngsters now, who are craftsmen now, who are capable of moving up the ladder, but there is no ladder for him to move, so he is going to be a craftsmen for the rest of his life.	Lack of career growth opportunities	
Promotions is there but very slow.	Lack of opportunities for career growth	
…you make the job work for you, you make yourself happy and you carry on, you don't let these issues influence you.	No outlet to change status quo	
…Purely financial. There is no self satisfaction.	Lack of job satisfaction	
…you make the job work for you, you make yourself happy and you carry on, you don't let these issues influence you.	Employees forced to ignore issues and do job as best they can	
…it is self discipline. It doesn't matter what it is, it comes down to it.	Poor self discipline	Self Discipline
…that definitely leads to the bad attitudes and the self discipline things, and that negatively impacts on work.	Poor self discipline	
And lack of discipline.	Lack of Discipline	
…he doesn't have the discipline to clean up…	Lack of discipline	
Lack of discipline	Lack of Discipline	
bottom line is, Its actually a lack of discipline	Lack of Discipline	
…lack of discipline, self respect…	Lack of discipline and self respect.	
…that is a problem of self discipline, lack of self discipline.	Lack of self discipline	
…start cultivating a group of people with self discipline, particularly self discipline more than anything else. Once you get there then the other things will come.	Lack of self discipline	
…as a matter of fact there should not be team leaders or managers or something like that, they should be one crew…	Individualism	Selfishness and Individualism
…so you can weed out those who don't want to be part of this team.	Individualism	
…he doesn't even to take his time to see that now everything is clear, once he said careful, everybody must listen and move. Then I carry on doing my job because I don't want to be blamed, my department and be reported…	Between team competition to complete task and protect own interests at expense of others	
…I suppose the other person has no self respect, he doesn't give a damn…its pure selfishness but I don't know, I can't answer why	Employee selfishness and individualism	
…if the old system of military training did nothing else, it taught people discipline, and respect for other peoples equipment and personal belongings, we seem to have all lost those types of things.	Lack of discipline and respect for fellow worker	
…you can't live in an isolated world where you only think of yourself. Where you only care for the job that you do, I mean there are other human beings working with you.	Disregard for fellow worker	
Protective clothing is not very nice looking, I mean these days everybody thinks of himself	Selfishness and individualism	

Dialogue	Primary Error Attributions	
Because people don't do their jobs and there is probably no money.	Employees not fulfilling job requirements	Work Ethic
…what I tell you if everybody does their job then there will be no errors, that's what they get paid for.	Employees not fulfilling job requirements	
Each section have got these people that go around and fix it, and if they don't do it, it becomes a hassle.	Employees not fulfilling job requirements	
I don't know, everyone has to explain for himself why he is not doing his job. I'm not there to watch everybody.	Employees not fulfilling responsibilities	
…if everybody does the job they supposed to do, then there will be no problems.	Employees not fulfilling responsibilities	
If everybody does their job, there will be no problems	Employees not fulfilling job requirements	
…people don't do their job properly…	Employees not fulfilling job requirements	
…Oh! We'll wait for the cleaners to come afterwards and by then its too late.	Not taking responsibility	
…I get the impression it is the personal attitude, the cleaner will come and do it just now…	Irresponsible attitudes	
Yes. It is like it will never happen to me.	Risk taking behaviour	
…too lazy to go and get them…	Laziness	
…he might have to go and obtain the correct tools, now that might be a schlep here. He has to work and he might be lazy to walk and things like that.	Laziness	
…if there is a discipline, people each and every person he will know exactly what I am doing…	Weak disciplinary procedures	Weak Disciplinary Process
…they long and they not effective…	Long and ineffective disciplinary procedures	
If you look at that lack of discipline…if he said you were fired that means that you took your bag and you walked out, so today it takes an act of parliament almost to get that done…	Lack of discipline	
…there is a manager or really a supervisor has not tools to discipline any more, it's a joke and that's it…	Managers/Supervisors Lack of tools to discipline	
…give a verbal warning, eventually it will lead to a written warning and then eventually that could lead to a disciplinary hearing…	Complex dismissal process	
…the law has become crowded…own persons rights seem to have taken.. A higher than any other sort of discipline	Employees overprotected in labour law	
We work a shift environment. Now with all that shift changes, that also impacts on you life style a lot ok. Not just your social life, but it also has a lot of implications on your metabolism and that kind of thing…	Impact of Shift work	Shift work
…I think that it takes me to come in from a night cycle, it taken at least two to three days to come out of that totally, because my mind and my body has become part of the night shift.	Impact of shift work	
…if there was such a thing as assessment of you pressure levels and your stress levels, they would know the capability of people…	poor person job fit	Stress
…but not once have you seen someone from within the company or outside the company come here and say, come to us, and sat listen, we are going to come to you guys and see what is your stress levels like and see what is the pressure like in this place.	Need for counselling	
…it is a very stressful environment to work in…	Stress	

Dialogue	Primary Error Attributions	
…And as I say, stress, they don't look at it, as I say, the environment is stressful, a lot of pressure,	Stressful work environment	
…sometimes because you have to deal with a bit of stress	Stress	
…then everyone is stressed because you have your own workload you have to cope with, and you have to cope with this problem done here as well, it becomes too difficult	Stress due to heavy workload	
…over the past ten years, the size, or the manpower size has depleted, but your aircraft fleet size has increased…	Increased workload	Heavy Workload
…the crew size was like 430 people, and if you look at it now, it is like a third of what it used to be, the fleet size, the aircraft size is like triple the size.	Increased workload	
…it will burden others if you don't do your job…	Burdening diligent employees	
…everything they just do in a hurry, but at first as I've said now, there is too much work, we are overloading…	Work overload	
…we used to have one aeroplane, maybe two aeroplanes in a week to do. Now in a normal shift I can have twelve aeroplanes and I will have to do them in the same time.	Increased workload	
…amongst those aircraft there is a time you see, and then we are not managing to do that…	Heavy workload	
…working normally in too much of a haste, that is why you are rushed to do things and that is when you really get hurt…	Time pressures	Time Pressure
…because of the time constraints you have, to do a job.	Time pressures	
…just to get things finished…	Time pressures	
…time pressures a problem…	Time pressures	
…especially in a issue where there is a rush or something like that, you have to overlook that…	Time pressures	
…the man is not wearing safety gear, you haven't got time to go and get it…	Time pressures	
…I think there was a time factor involved	time pressures	
…amongst those aircraft there is a time you see, and then we are not managing to do that…	Time pressure	
…we might not follow whatever they tell us because we just want to do that work quickly…	Time pressure	
Protective clothing is not very nice looking, I mean these days everybody thinks of himself	Aesthetic appearance of equipment	Tools, Equipment and Nature of Work
Wearing safety equipment is hassle.	Inconvenience to wear safety equipment	
…if you don't want to use it, its your priority. The laws is laid down, you have to use it, You don't use it, you'll carry the consequences of that.	Safety is employees prerogative	
…I don't think there is a known safety shoe in the world that prevents slipping…	technology of safety boots not advanced yet	
…we have gone through several international makes of shoes, styles, and everything and we have not found a reasonable slip protector yet...	technology of safety boots not advanced yet	
…he might have to go and obtain the correct tools, now that might be a schlep here. He has to work and he might be lazy to walk and things like that.	Distance to tool store	
They only got a certain number of things, lets take a ladder, they might only be three one metre step ladders or two one metre step ladders	Tool stores not sufficiently stocked	

Dialogue	Primary Error Attributions	
…aircraft have a lot of open panels, open kells, open space and people move around in those areas and they do walk into these things…	Nature of the work	
…its just the way it is, its like walking down a step	Nature of the workplace	
…they go and paint this nice white passenger or people on foot line there and people slip on it often...	Painted lines slippery	
…after hours the medical department is closed, there is no professional medical attendants on site…	poor availability of medical treatment after hours	
You have to make up tools yourself, we'll not yourself, there is a section that does it.	Manufacture own tools	
…awareness of things around you	lack of situational awareness	Human Limitations
…You got to be aware of what's going on	lack of situational awareness	
…I think the more awareness is driven around the human being, will tend to make it like a subconscious reaction, hearing these things all the time it will become part of conduct…	insufficient awareness	
…I'm looking through glasses this thick…	personal limitations	
…the guy that made the offer has some other activities to perform and in lieu of that he forgot to put the cover back on and the air blade was on…	exchange of responsibilities	
…guys that's not paying attention…	Lack of attention	
…you will get some bad judgements should there be a chemical spill, or something that he can tolerate at the time..	poor judgement	
…he might have a total slip of mind, you know that does happen…	slip of the mind	
…it is just a question of familiarity	familiarity	
…the guy wouldn't have had to remember it. He would actually have read it and remembered or known he hasn't done it and he would have gone and done it.	forgetfulness	
…ear plugs, ear defenders, you might not have them with you, your safety goggles might not be with you …	Circumstances	
…it has got something to do with the concentration levels and the regard for the danger in the areas that we are in.	Concentration fatigue	
…normally a short little task, the duration of the task is short and a guy needs to flush oil out of a kell or a clean surface	Shortness of task leads to bypass of regulations	Weighed Benefits
…a quick activity that ends up in a bad result…	Time of task weighed relative to time of setting up safety equipment	
…time could be a factor because this cleaning task is a very small, short event, it normally happens when people are busy closing kells or closing compartments, the last thing that happens before closure…	Time of task weighed relative to time of setting up safety equipment	
…he has done this a hundred thousand time before, never walked into a prop and this time he was unlucky and he did…	statistical probability	
…it has got something to do with the concentration levels and the regard for the danger in the areas that we are in.	disregard for danger	Risk taking and Role modelling
…lets say some of the workers who do not want to take good care of their health, they thought maybe the other one will take good care of his or her life…	Personal attitudes	
…believe that they're infallible	Risk taking behaviour	
…this one being a cleaner, even himself he says why doesn't the mechanic wear this, you want us to wear this…	role modelling negative behaviours	

Discrimination

	Ineffective Management



Organisational Culture







Appendix H

Team Leader Focus Groups- Primary Error Attribution Themes

Dialogue	Primary Error Attributions		
…the planning was very bad on the leave this year, the planning was very bad in giving the guys off…	inefficient manpower planning		Management and Team Leaders Lack Skills
Because they don't budget, that's why it is not enough.	poor budgeting		
… and he needs training, he must be able to plan for himself not wait for the boss to say do this…	managers lack managerial skills		
..we got no training at this place at this stage for team leaders, because there is a certain way to handle people and speak to people and stuff like that. I think we got a lack of that.	team leaders lack the required managerial skills		
..because certain team leaders they got the skills and their teams operate better than the one without…	team leaders lack the required managerial skills		
…that manager who runs the store needs to be trained how to buy the tools because you walk around the store there is only one or two tools while there is 24-25 tools that need to be used on the aircraft...	managers not adequately skilled to do the job		
…I also think that they need to be trained, because you get the store man, he doesn't know how to work the computer sometimes…	insufficient training to perform job adequately		
…if the team leader has got the right skills and stuff, to motivate his team, his crew. Sometimes what happens at this stage is that their morale is a bit low and the team leader himself is negative…	Team leaders lack Motivational skills		
..if there is something wrong and they see the tool they can grab it and they can fix the problem and in some crews they can't finish their jobs they can't do it…	inefficiencies in teams due to poor leadership		
…the other thing is training because the guy, if he had training on the job then he can do the job with self confidence and you know what you are doing to get finished in that certain time...	inefficient on the job training		
…the other thing is training because the guy, if he had training on the job then he can do the job with self confidence and you know what you are doing to get finished in that certain time...	inexperience		

…but again they don't look at the skills, they don't look at the personality and stuff like that because that plays a big role in the team leaders position and so on...	person job fit not given adequate consideration		Selection Processes
…the wrong guys, in the wrong positions, because for them, it is not necessary because they can't see it…	People not suited for their jobs		
…the managers they don't have to take a risk by just choosing somebody by saying that you are a team leader without knowing him deep and what standard does he have on the same job…	subjective promoting by team managers		
…choose a person for a promotion, the post must be advertised and each candidate, each and every candidate who applies for it must have the…so that is just not to take somebody and put him there that will be better	unfair selection process for promotions		
…they'll go according to seniority, they take the guys with pension numbers and…you get the younger guy that is interested and he doesn't get the opportunity to go on course…	Inadequate selection process for training		
Some of the guys, five six years, no courses; so that demotivates them completely	Lack of training opportunities		

Dialogue	Primary Error Attributions		
...then you must go look for the guy who draws the tool out if the stores and that type of thing frustrates us…	Frustration	Poor Attitudes	Employee Unhappiness
…there comes a time when they really want to go away, because they feel that they are always suffering and that they can't get away.	employee frustration		
…if the team leader has got the right skills and stuff, to motivate his team, his crew. Sometimes what happens at this stage is that their morale is a bit low and the team leader himself is negative…	low morale		
…if the team leader has got the right skills and stuff, to motivate his team, his crew. Sometimes what happens at this stage is that their morale is a bit low and the team leader himself is negative…	Negativity		
…that guy is not really interested, they are not focused to do their job…	disinterest		
…that guy is not really interested, they are not focused to do their job…	lack of focus		
...negative rumours flying around, that brings motivation down...	demotivation		
You know if you give a guy a course, that motivates him…if you train him, that motivates him	demotivation		
Some of the guys, five six years, no courses; so that demotivates them completely	demotivation		
..here you got a union that must go and negotiate for the increase and it takes about six, seven months	difficult salary increase process		
months..that type of thing is definitely not good to keep a guy positive.	negativity		
I think that also motivates so they know the guy is for them also…	low motivation		
…you got one certain crew, they finish…it is not correct, they are leaking afterwards and stuff like that and then ten crews get blamed for it…	generalisation of blame		
…it is much better but I think that on our side there is a little bit of racism here and there…	racial attitudes	racism	
…you know they also come out of a generation you know, they are old already and it is difficult for tem to adapt to the new South Africa…	Old attitudes and methods		
…the guys are complaining about that it makes them so upset about this whole system, if you are hungry after eight hours work or five hours you want to go up there and have a nice lunch…	canteen not catering for shifts	canteen	
…we have got a beautiful canteen here…not running the correct way, there is definitely room fro improvement there	canteen not providing adequate services		
When it comes in the night shift by ten o'clock, nothing to eat, nothing to buy, so you have to wait until seven o'clock the next morning and you knock off at six o' clock	canteen not catering for shifts		

Dialogue	Primary Error Attributions		
…there is nearly two three four hundred metres back to the stores and you run to the stores, get to the store and find that there is no tool, and then you must run to another store or look for people who are using the tools.	Unavailability of tools		Tools and Equipment
…you get in our cases now, you change the component, you get tools to test afterwards and we haven't got that tools, so we take chance to send that thing up…	Unavailability of critical testing equipment		
…you change a certain component it will take you an hour because you haven't got that equipment you will end up sitting sometimes eight hours battling to change that component…	tools not purchased		
I think that they don't want to buy it, they got the money…	unwillingness to budget for tools		
…because we are actually all the time under pressure to get the aircraft finished and out in a certain time period..	Time Pressure		
…in the previous years we normally do it our own, our self. And we use to spend more money…whatever you send them they will service it for a week, and then it has to be sent back to them.	inefficient outsource company		
…in the previous years we normally do it our own, our self. And we use to spend more money…whatever you send them they will service it for a week, and then it has to be sent back to them.	inefficient outsource company		
…every time you want to get something fixed, you must log it, you wait two three weeks, sometimes longer than that, and when you send it they look at it and they fix it, in a day or two and it breaks again…	Inefficient outsource company		

…maybe they call the guys once in two three years to say you need to wear ear protection…but they must on a regular basis.	safety reminders far apart	Safety Campaign	Communication
The guys must be educated, you know, regularly. They must come into you know second nature…	safety not habitual		
Give them the facts…you know 200 people got deaf here, you know and stuff like that, they can see it and that will make them aware of this safety…	insufficient fact based education campaigns		
Even myself, I am not aware that it is dangerous…	lack of awareness of hazards		
…you get a boss or a manager, lets say a hanger manager or something…man for many months you don't even see the guy, I believe that that guy must play a bigger role…	low accessibility of management		
…at least once a month or so, come and speak to the guys,	poor management feedback		
…with this rumours going around, they want to get rid of the white guys…	broken communication channels		
…they will have a meeting with the guys once a month, they start it for the first month and then you don't see the guys for the rest of the year again	poor communication		
…they will have a meeting with the guys once a month, they start it for the first month and then you don't see the guys for the rest of the year again	poor management accessibility and visibility		
…speak to the guys the self, because every time the guys hear the team leader they all get a different story…	broken telephone		

Dialogue	Primary Error Attributions
...we don't need to hear something about our company via the other section or via the newspaper. They need to come down and speak to us.	broken communication channels
…you know…that is also true…if you hear rumours like that, then it makes the guys also negative themselves.	rumours cause negativity

Appendix I

Maintenance Staff Interviews- Secondary Error Attribution Themes

Dialogue	Secondary Error Attributions		
…they are so focused on getting the job done that they don't try and think on the safety aspects…	trading off safety to get the job done	Trading off Safety	Safety Culture
…supervisor can force you to do that job. With out that proper equipment…	trading off safety to get the job done		
…You find that there is no mask but the supervisor can force you to do that job…	supervisors force workers to work without equipment to get the job done		
…trying to impress to show how you can do the job within the prescribed time…	trading off safety to get the job done		
…where they might say in a way, you know, listen stuff that safety equipment we need to get this done and over with…	trading off safety to get the job done		
…there is a lot of jobs to do, and then I carry that battery alone, or I pick up something heavy just to get the job done…	trading off safety to get the job done		
…again I feel they are too focused on getting the job done…and they tend to discard all the..some of the safety aspects…	trading off safety to get the job done		
…I felt that he was overlooking the safety options in favour of getting the aircraft out and not considering all the people around that were affected by his actions…	trading off safety to get the job done		
…the guys are pushed to get the job done, you know they are more concerned about getting the aircraft serviceable then safety…	trading off safety to get the job done		
…he doesn't care because the team leader or whoever is standing there right behind him and he is pressed for time…	trading off safety to get the job done		
…most people they are obstructing the fire equipment with the stands…	obstructing fire equipment wit stands	Safety Equipment Unserviceable/accessible	
…you have to go down the stand, now you have to go through the whole length of the aircraft there to a basin in front of the aircraft…	safety equipment not easily accessible		
…right next to the basin, there is no water on it…	safety equipment not serviceable		
…in the corner there, that's where we pack our stands…	safety equipment not easily accessible		
…We don't even have masks if we go in the fuel tank, they got this measurement, if it says six, you don't go in, if it is below six, you can go in. But now the fuel is still in, how can that be good for you.	Safety equipment not available		
…because there is no mask or it is broken..	Safety equipment unserviceable or unavailable		
…I heard two months ago that they went into the fuel tank, there was one mask and three of them…	Insufficient safety equipment		
…the only thing you got to do is go to the store, and ask them how many masks. And you see how many you get…	Insufficient safety equipment		

Dialogue	Secondary Error Attributions		
…if everything is clean, you are not exposed to any hazards…	unsafe work environment due to lack of cleanliness	Unsafe Practices	
…at about the fourth step from the top, there was this cloth, I didn't see it because I carried these things down and I slipped from there right down with the test boxes and I broke my ankle…	fell down stairs because of cloth left lying on floor		
…you find there's a lot of oil on the floor and those people doesn't take care of the oil on the floor and you can slip and fall or break a leg	not cleaning up after working		
…if you are on a higher aircraft you can just jump on the stand and get through the over wing door, not like on the smaller aircraft where it is an emergency door, where you don't want to fiddle with it…	not utilising safety equipment		
…we had instances where people have got hydraulic fluid in their eyes…	not wearing eye protection		
…if you have time to go to the locker to pick it up, now they push you for time, now what the guys do is to just throw the chemicals there and tell you now I feel like heaven and they'll laugh about it…	not using safety equipment		
…well, taken in terms of legislation, people are supposed to be voted, it is a general vote on the floor generally…	not abiding by legislation	Not obeying policies, procedures, regulations	Employee Culture
…speeding I also think is a big problem, these people they rush around, they don't consider the other people in that work area, they don't follow procedures, driving with the lights off at night…	Speeding		
…speeding I also think is a big problem, these people they rush around, they don't consider the other people in that work area, they don't follow procedures, driving with the lights off at night…	not following procedures		
…people should get their heads together and work according to what the book says...	not following procedures		
…if you do your job according to what the manual says, the manual will tell you listen, if you do this someone will get hurt…	not following procedures		
…sometimes they don't wait for that thing to vent, they just want to get in there and do the job you see…	not following required procedures		
…instead of going to the carpets and check it like we check the headsets, you come to the carpet and see if it is tight or not tight…	checks not carried out to completion		
…last year one of the mechanics was working in the engines, they never apply the brakes in the stand then the stand just moved unexpectedly then he fell on … what you call this?…	not obeying procedures		
…but I say it is the same as in my section, some people do it and some people don't…	checks not carried out to completion		
…they take another chemical, they use the strongest chemical…	ignoring regulations		
…but the supervisor is suppose to see those people that are using the wrong chemical…	ignoring regulations		
…suppose to put the demarcation sign to say that there is oil on the floor according to the safety you are suppose to put demarcation…	not obeying regulations		
…they ignore the rules in fact they need somebody to push them…	ignoring of rules and regulations		

Dialogue	Secondary Error Attributions	
…he doesn't have the training because here at the company… if you see somebody is driving you can take it your self and drive …	not licensed training to drive forklift	
…people try to take shortcuts or try to push the job…	shortcutting	
…he doesn't have the training because here at the company… if you see somebody is driving you can take it your self and drive …	disregarding rules and regulations	
…Maybe a person is working with out applying breaks on the stands ……. Maybe they are using cherry picker not wearing safety belt…	not following regulations	
…usually if time is gone they take their tools and they go… and there is no signs.	not obeying company regulations	
…he does not obey rules those people…	disregard for rules	
…that is not reported is on paperwork, sometimes you do a job, a quick job, and you don't usually do all the right paperwork you should do, but the job is done…	Not doing appropriate paperwork	
…you get people that do serious stuff and don't fill in paperwork, then you can have serious implications once again, time and money, because it comes to the workshop and you don't know what the hell is going on…	Not completing adequate paperwork	
…I recall comments made, where cowboys don't cry and things like that, and that you are a sissy if you wore a safety harness and things like that, its only men that get the job done properly…	Bravado Attitudes	Poor Attitudes
…Cause I want to do my job other person he doesn't want to give me chance to do my job because he is racist…	time loss due to racist attitudes	
…he will not give it to you to use that key, he'll say I'm still using it, I'm using it for eight hours. And you suppose to use the overtime to finish out the work late…	time loss due to racist attitudes	
…maybe he is racist I don't know…	racist attitudes	
…usually if time is gone they take their tools and they go… and there is no signs…	clockwatching	
…the safety rep they are talking to those guys but a person just leave now and say haai you see time is up I'm just going now…	clockwatching	
…it's long time I've been working with this company, long time I'm working here eight years you can not tell me nothing…	ingrained attitudes before introduction of safety consciousness	
…now I've seen a person carrying on, he closed hi one eye and he is trying to carry on by leaving that thing burning there and damaging his eye…	not seeking medical attention	
…instead of completing the job in five minutes, it will now take you fifteen minutes…because they now dragging it on…	time wastage	
…some times a person take it for granted he never concentrate so not concentrating so you busy working talking to some body...	lapses in attention	Human Factors
…when you think that the supervisor doesn't saw me I wouldn't report it cause if the air craft can get a small hole, if it is flying on the top, if the air can get in there it can make the aircraft fall…	employees not reporting what's seen as minor errors	
…he pulled the isolation pin out, then obviously the flaps extended and damaged the engines…	damage to engines	
…he didn't forget, but he didn't think of it then…	slip of the mind	

Dialogue	Secondary Error Attributions		
…then it doesn't stop when you want it to stop and it runs onto the aircraft, damaging the aircraft…	aircraft damage and flight delays		
…so people tend do rush it, they don't concentrate on their task or they don't observe…	lack of concentration and situational awareness		
…the walk the area around where they working and they don't see a patch of oil or they trip over a piece of equipment or a comb, or a choux or something…	lack of situational awareness		
…I've seen him burning his arm here, three rows of blisters…	Skin burns		
…we use this type of foam stuff and that doesn't smell too good, and if you get it in you will cough a lot, and I mean if you cough it is not good for you.	Chemical exposure		
…by the time the mechanic arranged a GPU it takes another hour, now the mechanic says to me, hey when can I start with my work, I say when I'm finished with my work, as easy as that because I started first...	conflict between job tasks and resources available	Competition for Resources	
…but if they got a certain snag, utility bug for the fridges or something, they must switch off the power to get the thing out, now if they put it off, my system bonks…	conflict between job tasks and power state		
…too many people working with the same systems and interacting with one another…	Competition for time, system and space resources		
…they nearly bliksemmed the guy because they stole it man, if you got a GPU on your shift, how can these blokes take it…	Competition for resources		
…now if they didn't spend the money, why can't they give the money back to the sections who need that money. Now we are always told we must save, now how can you save if you need that…	Lack of financial resources		
…I feel the planning needs a bit of work in this organisation…	Inefficient planning	Inefficient Planning	Management Culture
…but I feel that in a maintenance environment like ours, like here, they can plan it better...	Inefficient planning		
…ja. I think planning it better, maybe this aircraft does not have to fly, and it come back and stands here for a while…	inadequate planning		
…we must send technical blokes to Germany, to inspect the aircraft before we do the work here…	poor planning and strategic decisions		
…then you got to do it again and then it takes another two days…	shortcutting costly in the long run		
…planning could improve, that is another point which I feel if I had the power, I'd try and plan it properly, get people involved…	Inefficient planning		
…they may follow procedures where they are overlooked, like recent mistake where there was one little item…	procedures not adequate and complete		
…that going to make my workload more, so in essence I'm not going to get my work done and that's going to cause delays…	Poor workload planning		

Dialogue	Secondary Error Attributions	
…now while we doing this content loading there is certain checks which the avionics does or sometimes the mechanic the mechanics they must switch to power or do something but now they can't because we are loading content, so there is sometimes difficulty there...	Conflict between job tasks and resources available	Management Injustices
…there is a lot of time where shifts have changed and guys have lost allowances or they were in a position of authority and getting paid for it but in an acting post and then umm…they didn't get a permanent post…	perceived injustice in decision making	
…a person has had a post for 18 months as a supervisor, but he is actually a second in charge, and then when say there is a change, you supervisor came back to his post and that guy had to take a step down again…	perceived injustice in making appointments	
…they don't communicate and because they don't talk and because they are all running away to meetings and worrying about other things, they don't sit and talk to their staff to say you know this is what I want to do…	poor communication	Communication
…we got four team leaders in the IFE crew, three team leaders sit in their office, my team leader watches TV. Every time I hear something, I hear it from other people but not him…	breakdown in communication between team leaders and staff	
…we don't communicate with the managers at all, so you got the supervisors and the team leader…	lack of communication	
…I don't think that those stands belong to the company, I'm not sure how the company works but I think that they are maintain by LGM	Outsource company not performing	Outsourcing
…its not working, we are supposed to wait for the people from LGM to come and fix it…	time losses	
…its not working, we are supposed to wait for the people from LGM to come and fix it…	inefficient outsourcing	
…now we will see all the snags and who's paying, and that's where we make the loss, cause nobody goes to Lufthansa see…	financial losses due to poor managerial decisions	Poor Decisions
…that's a big error there and the company loses a lot of money…	financial losses due to poor managerial decisions	
…to repair our GP unit, they can't repair it anymore, now we run the APU from that aircraft for six hours undisturbed…	financial loss due to poor equipment management	
…suddenly there is no money to complete it and it is much cheaper doing this than having an APU running the whole day…	long term financial savings not considered	
…It's the duty of the supervisor to take care of this when the people are working it is the duty of the supervisor the make sure that they take care of that	supervisors not fulfilling responsibilities to make workers obey regulations	Supervision
…those people never follow the regulations and the supervisor himself…	supervisor and worker negligence	
…we come in on shifts and the manager walks in here and you walk in here at ten past eleven, they will not even know, they don't even know when you have to start your job…	Inefficient supervision and management	
…find the supervisor is not around and he is busy smoking a cigarette, he is lingering around the technical area…	supervisor not performing duties	
…Most of the things happen when the supervisor is not around because those supervisors they are not always at the work place…	supervisor not performing duties	

Dialogue	Secondary Error Attributions
…I know its his job, but because it is more work for him, he is lazy…	Team leader not taking responsibility for own work duties
…we got four team leaders in the IFE crew, three team leaders sit in their office, my team leader watches TV. Every time I hear something, I hear it from other people but not him…	Supervisors not performing duties
…now I must go to him and ask him what can I do, instead of him coming to me and telling me, that's his job isn't it…	Supervisors not performing duties
…there is ten guys, five guys sit and five guys work…	staff not fulfilling responsibilities and tasks

Dialogue	Secondary Error Attributions	
…that is that guys responsibility to e there, and to get the flow of the job going, some of them, they in the position and they get the money and they just stand there with folded arms…	employees not fulfilling responsibilities and tasks	
…the job they do is paperwork and getting spares and that's it, trouble shooting and they get, but some people they are carrying this company and some people will not…	employees not fulfilling responsibilities and tasks	
…you get some supervisors that will overlook safety clothes…	Supervisors don't enforce safety	
…they might overlook it, but I don't think they are going to say don't wear that otherwise…	Overlooking safety regulations	
…some supervisors put pressure to say sign it and let it go…	supervisor pressure to overlook procedures	
…so they always come to you with this ridiculous request, no we need this aircraft tonight or we need this aircraft tomorrow…	unreasonable management pressure to get the job done	
…we need to place more emphasis and also across the board, on specific personal, you know basic sort of training…	Poor emphasis on basic training	**Inadequate Training**
…you get new guys, the apprentices coming in, all of them doesn't have the computer training that maybe I, or you, or whoever else has…	lack of proper induction and training for apprentices	
…there is a lot of people who is not even close to getting certification that are using the computers. And sometimes that will cause the computers to just bom out...	apprentices not trained to use computer systems	
…I found a respirator lying in the fuel tank…	Expose safety equipment to hazardous elements	
…I don't think there is enough training and why I tell you is that there are certain people trained that are chosen and I sometimes feel that the wrong people are chosen...	Insufficient safety training	
…I also feel that a lot of those people don't know that law…	Unaware of legislation	
…there is a book and the manager hides it away and doesn't say you know you have a right to see …if he doesn't tell you or you are not made aware of it you will never know…	Unaware of legislation	
…there is people that are put on course even if they have secondary last, so that is just the way that get chosen from the bunch…	inconsistent selection processes for training	**Selection**
…now here all of a sudden the guys on course and you don't know why…	inconsistent selection processes for training	
…but I fell sometimes the management says, ag, we'll send that member. I fell as a safety rep should be chosen to this work because he has an interest…	Inappropriate selection of safety position	

Dialogue	Secondary Error Attributions		
…but there is no one who tells you this is your final warning, nothing like this…	Lack of disciplinary process	Discipline and Disciplinary Process	
…that same bloke he comes to work late everyday, there is nothing he can do about it…	Lack of disciplinary process		
they give him a written warning once, and then they say why don't you give him another…	insufficient disciplinary process		
…he starts seven o' clock, he comes yesterday twelve o' clock, he doesn't phone his team leader, nothing…	employee truancy		
…but if you really want to, you can find it out because you can always find who drew it from the stores, you can, but they don't….	lack of disciplinary process		
…we come in on shifts and the manager walks in here and you walk in here at ten past eleven, they will not even know, they don't even know when you have to start your job…	late coming		
…he gets a letter, of you don't stop this shit we will kill you. He doesn't know from where it was, now at night he can't sleep…	Death Threats to team leader		
…remember the guy I told you about with the burns on his hand. I think he did go report it. And even him, he did not want any one to know that he did report it, behind our backs he went to report it…	not reporting incidents		
…if you have a clean working environment I think you'' be a whole lot happier, instead of coming to a scrappy garage where things are lying all over the place …	tools not replaced in designated areas and left scattered	Tools Disorganised	Inadequacies Regarding Tooling and Equipment
…I think you'll be able to find everything if its organised…	tools and equipment not organised		
…if you have tools lying all over the place, you trip and fall or you slip, that impacts on safety, that impacts on productivity, it impacts on your personal health…	tools not replaced cause dangerous work environment		
…if you can find everything then obviously you will work a lot quicker, instead of saying right, where did I put this, or where is that…	time wastage due to disorganisation		
…I said listen, I don't want this piece of equipment here, get me something that's serviceable, this one must go…	equipment not serviceable	Equipment Unserviceable/Unavailable	
…usually we are a lot of people with a lot of aircraft and sometimes there are ten other guys that are doing the same job that needs the same equipment and then I can't get it…	Availability of equipment		
…there are four of us using the one stand, if you are finished, you borrow me the stand, so on, so on, we are loosing a lot of time in fact…	too few stands		
…the leg is out or the brakes of that stand is broken, those wheels are o longer working properly…	unserviceable equipment in use		
…I don't have a problem with the thing that washes your eyes, but the ones that are working, that one doesn't have the stands in front of them, the ones on the side, ja…	equipment poorly maintained or unserviceable		
…some stand that is broken is reported…	equipment not serviceable		
…management doesn't take care of those stands…	equipment not maintained		
…doesn't have the proper equipment to work…	insufficient or inadequate equipment		
…maybe they repair it late…	equipment repairs not carried out on time		
…its not working, we are supposed to wait for the people from LGM to come and fix it…	unserviceable equipment in use		

Dialogue	Secondary Error Attributions
…there are four of us using the one stand, if you are finished, you borrow me the stand, so on, so on, we are loosing a lot of time in fact…	time losses
…Let's say we are using chemicals and you don't have enough equipment…	insufficient or inadequate equipment
…we changed a cable , a thick cable on the generator on one of the aircraft and we didn't have the big cable cutter and we should have so we used a hack saw and it slipped and cut his finger…	tools not available
…we need to fill the hydraulic reservoir quickly and there is not enough equipment…	Insufficient equipment
…then it doesn't stop when you want it to stop and it runs onto the aircraft, damaging the aircraft…	equipment poorly maintained or unserviceable
…I'm surprised that so many people didn't get hurt with some of the equipment we have to work on here…	equipment poorly maintained or unserviceable
…it can drop at any time and they don't have time to fix it…	equipment poorly maintained or unserviceable
…its very time consuming because they can't switch the power on…	time wastage due to conflict for power resources
…sometimes you don't have the equipment so you just do you job and that could cause injury to people.	Equipment not available
…to repair our GP unit, they can't repair it anymore, now we run the APU from that aircraft for six hours undisturbed…	equipment not serviceable
…and the same with the cherry pickers, some of them are dangerous to work on baskets full of oil and those kinds of things…	equipment not serviceable
…on the whole airways premises there is one ladder, one that can reach there and they use it at majors…	Insufficient equipment in stores
…I worked at a 747 that needed ground power, they took this GPU from team A because it flies tomorrow…	Insufficient equipment
…it's the same with these extractor fans and all, you must have at least three hours before you can climb in there and these things they don't work properly…	equipment not serviceable
…they got four soldering irons, battery ones and only one works, this new aircraft you can't take the bulb out and put a 28 volt soldering iron in there…	equipment insufficient and not serviceable
…the aircraft stands that we use to get into certain places in the aircraft, they re not up to standard, some of them are a bit rusted and broken…	equipment not serviceable
…I would say equipment, sometimes we struggle to get the equipment for the job, and then we have to make another plan and then that could become an error…	Availability of equipment

Dialogue	Secondary Error Attributions	
…I would say equipment, sometimes we struggle to get the equipment for the job, and then we have to make another plan and then that could become an error…	not using designated equipment	Using Wrong Tools/Equipment
…we changed a cable , a thick cable on the generator on one of the aircraft and we didn't have the big cable cutter and we should have so we used a hack saw and it slipped and cut his finger…	not using designated tools	
…switch off the reading light and you can make it with masking tape and it burns…	using the incorrect equipment	
…now the guy will use a screwdriver, the thin one, so you see, now they'll use this thing to hit there and this thing will slip all the time…	using the wrong equipment	
…sometimes the guy is using a screwdriver and it is not a proper thing that can fit into hole…	using the wrong equipment	
…but I don't have a side cutter on me, I got a knife on me, so I hold it like this, and I cut my, yes sis, right open, right open now…, and you know I missed my eye also…	using the incorrect tools	
…we carry out our work with the small stand and find that we are loosing a lot of time…	using wrong equipment	
…sometimes you don't have the equipment so you just do you job and that could cause injury to people.	using inappropriate equipment	
…we don't usually use this thing unless there is an inspector running around, or someone that might see you. I've seen a guy who would take half an hour to an hour to get the equipment ready…	inefficiency	Inefficiencies
…now we must walk from this hangar to this hangar, to find out if there is a ladder and that no one is using it…	time wastage	
…most of these fancy units, they stack them so they can blow up and it can cost them thousands of rands…	poor equipment design	
…if you take this seat electronic box, you don't know who drew this thing. Any bloke can take it and its gone…	insufficient controls to track equipment	
…to struggle and get equipment, by the time you get the equipment, if you work on the old day way then you will be finished before you get the equipment…	long process to get required equipment	
…you draw about three reflectors but you only use two, so with the spare one you too lazy, put it in your cupboard, it disappears…	wastage of spares	

Appendix J

Maintenance Staff Focus Groups- Secondary Error Attribution Themes

Dialogue	Secondary Error Attributions		
…you work in a crew and you work with gentleman and he teach you shortcuts…the most dangerous problem in an industry, or in our trade is when the junior makes decisions on short cuts…	on the job training is deficient		Training and Attitudes
…these are the allocated people that should go and they should allocate a further ten seats…for previously disadvantaged candidates…	inadequate training selection process and policies		
…and favouritism as well, in this company I noticed maybe in other companies as well its who you know. If you know somebody well you can get promoted without having the proper paperwork and without having the proper this and the proper that…	not following promotion processes and procedures		
I would change planning and then you got to change attitude…	Unacceptable attitudes		
I would change planning and attitudes	Unacceptable attitudes		
…when you think that the shortcut is the only way, you don't know the correct way to do it…	shortcutting		
…you usually find that people tend to report more serious errors and the smaller ones are overlooked.	overlook minor errors		
…at some stage the error might sneak in because you are so stressed out…	bad stress		

…they are realistic if proper planning was implemented to make sure…	inefficient planning		Planning and Strategic Interventions
....imagine you have a delay, all these things have a ripple effect, in four hours all these things will cost you two million rand, but imagine if you invest another thousand rand, you might save five delays in that period....	short-sighted budget planning		
...this here is planning, its down to mismanagement....	mismanagement		
...you know it comes down to proper planning...	inadequate planning		
…come on man, if you haven't worked it how can you understand what it is, work it, go physically study it, just don't make a decision because you think that it's the right one, you know its small things.	uninformed decision making		
…there is about 70% or 80 % of mechanical people that doesn't have one course on there name or certification…	poor workforce planning		
…bad planning and that's how errors creep in, it is a couple of things adding up together…	Poor planning		
I would change planning and then you got to change attitude…	Poor planning		
I would change planning and attitudes	Poor planning		
…bad planning and that's how errors creep in, it is a couple of things adding up together…	Multiple errors regularly		
…there are a lot of times that they punished the oke that makes an error but they don't look at what caused the error	not considering factors surrounding errors		
…there is like ten or twenty people all making errors and they all form this chain and at the end you get this serious effect with the chain of events	not considering contributing factors		

Dialogue	Secondary Error Attributions		
…basically when you put planning you must put support, support system, because planning and support goes with procurement via the whole…	Poor support services	Support	Tools, Equipment and Job Task Support
…what they don't say is that for these factors to be accomplished in that time, these factors have to be in place, which is not for us…	inefficient support structure		
…our planning, basically any department, our whole support structure, if you want a spare it takes sometimes like 20 minutes, half and our, if you want to fault find…you must look at world class organisations with the support structures and facilities to back it up.	inefficient support structure		
If you want this ladder from this store, it must be there, if you want this crimper, like we work with crimpers, it has to be there. You can't go for crimper and now you doing your job and the store man just says that some guys might have taken the only one...	depleted stocks of tools and equipment	Tools	
....this is a multimillion dollar industry, one crimper for the whole airline, then you have to go look which guy got it there, it doesn't make sense....	availability of tools		
...because there is only one, the oke thinks that he might not get it tomorrow so he leaves It in his box...	depleted tool store		
...at the end of the day you become more adamant, why are you taking so long with your job...when the tools aren't there.	unavailability of tools		
....why must we be dependent on a depleted tool store?	depleted tool store		
...so the proper strategy is to have the proper tools, not just one tool...	depleted tool store		
...using a certain ear protection that when we put that thing on you still hear the noise, so we are complaining to our management....	safety equipment does not sufficiently protect		
…this crimper you are looking for, and this tool and that and you get to that airplane…	unavailability of tools		

…because the team leader that suppose to do this motivational thing or function to motivate their team, they not trained in motivational speaking or what.	Team leaders lack motivational skills		Management
…some guys don't know how to speak, they don't know the human element of the job and to make it worse, they don't know the financial element of the job…	managers lack the human and financial managerial skills		
I would agree that a lot of managers lack the knowledge that they need for fulfilling the management post.	managers lack managerial knowledge and skills		
You know these oke, they rather fight fires than prevent fires	reactive management		
What's it, umm…reactive measures as compared to…	reactive management		
…our managers need proactive management, they don't even know how to put a fire off. They don't know how to put a barrier around that veld to not allow…the fire doesn't jump to that part…	reactive management		
There is a lot of managers that just sit around playing solitaire the whole day.	Managers not performing		
…you got assholes like us who carry, do his job, so he can get paid, so that at the end of the day, if he can't make a plan, we will make a plan to get it done…	management loafing		
…actually the way they manage, they manage us so that we are not desperate…	inefficient management		

Appendix K

Team Leader Interviews- Secondary Error Attribution Themes

Dialogue	Secondary Error Attributions		
…age is a problem with them, some of them are not serviceable…	old equipment not serviceable	Equipment Unserviceable	Tools and equipment
…because of the time constraints with airplanes to get them serviceable, you are forced to work with such equipment	utilising unserviceable equipment		
…they never have decent equipment for you to say, ok, we see this is a problem, these stands are not equipped to be on there…	Equipment not serviceable		
…maybe its better to take the rags that we use to clean the aircraft and a selotape so that at the corner of those ladder…so even if a person can bump the aeroplane mystically they will not damage the aircraft…	Equipment not well maintained		
…change the type of equipment we use so that I will look at each section and say listen, what is the type of equipment you use, is it serviceable, what is the calibration time with it, are they all calibrated, do we require new equipment…	Insufficient equipment maintenance controls		
…that one is not in a good condition…	Equipment not serviceable		
…there is some equipment that is very dangerous…	dangerous equipment		
…not being well serviced…	Equipment not well maintained		
…how is it that some of them, that are like 30 years old, which is barely standing on wheels any more…	Equipment old		
…as I said to you, tools and equipment was one of the issues	availability of tools and equipment	Availability of tools and equipment	
…for some reason there is no monitoring of this equipment, for some reason I don't see them as actually looking at this equipment and saying hey, this is a potential problem	Poor equipment monitoring		
…we don't need to go looking for such equipment when we use it, this is another factor, we always have to go looking for stuff.	equipment not available when needed		
…runner bay, they use to take the airplanes there just to run the engines…they can erect another bay so that there can be…	Not enough runner bays		
…first of all you are looking for spares. Are there spares? No there are no spares. Ok. Right, so can you fix it?	Shortage of spares		
They'll buy the aeroplanes and they will not buy the tools, that's not normal and they will not buy the spares for it.	lack of tools and spares		
…It just doesn't get fixed because they don't have the right spares.	lack of tools and spares		
Safety method, improper safety equipment…improper safety attitudes…errors in documentation and work on aircraft.	Improper safety equipment	Using Incorrect Equipment	
…working on top of aircraft with improper…not the correct safety equipment	Not using correct equipment		
…he might have to go and obtain the correct tools, now that might be a schlep here. He has to work and he might be lazy to walk and things like that.	Using the incorrect tools		
…the leatherman, you know this multitool, a hell of a lot of people use it, because it is not the right tool but it does the job.	Using the wrong tool for the job		
…So now you have to go to another place, unless you end up standing on a chair or a table or something silly like that.	Utilising incorrect equipment		

Dialogue	Secondary Error Attributions		
…maybe its better to take the rags that we use to clean the aircraft and a selotape so that at the corner of those ladder…so even if a person can bump the aeroplane mystically they will not damage the aircraft…	Equipment design flawed	Design	
…that rubber it does not take long and we see that…	Equipment design flawed		
…It just doesn't get fixed because they don't have the right spares.	defects not repaired		
…not using equipment correctly.	Not using equipment correctly		
It damages the equipment all the time.	Damage to equipment		
…you know that somebody else was in the area and he got it in his face by accident and I think that could be a problem.	poor communication to others in environment of safety risk	Communication Regarding Environment	Communication
…somebody is approaching an engine being washed down and he is not aware that the engine is being washed down and all of a sudden he is in the vicinity	poor communication to others in environment of safety risk		
Yes. There is no warning out to say these chemicals are being utilised	Poor warning regarding chemicals in use		
But when it comes to chemicals, I personally have not seen any notices to say that such chemicals are used or dangerous chemicals are in use, please adhere to the safety precautions.	Poor warning regarding chemicals in use		
…and there isn't a clear demarcation line of how close the engine you can get…	No clear warning of dangerous environments		
…when they are retracting the flaps, some of them they don't even say anything…	Poor communication of dangerous situations to others in environment		
…we could mark certain areas with placards and very visible recognisable, known markings	Insufficient safety markings		
…I believe it is anything from communication, if you take the number of times guys have been exposed to paint stripper when painting...	poor communication		
…people don't communicate with each other…	Lack of communication	General Communication	
…if you are in that shift cycle and it is a public holiday, what is going to happen, you are liable to work, or is another crew liable to work….	Poor communication of policies		
…Basically it is communication, he has either not the ability or does not know who to contact to say I'm finished with the aircraft…	Poor communication and knowledge of communication process		
…they become grape vine issues or issues discussed in safety meetings, so its not very well known.	Poor communication to grassroots		
…Umm, where it can happen is when procedures has been changed. Like recently we changed the water decontamination system of the aircraft, we changed the disinfectant agent and there was some errors…	poor change management and related communication		
…an old chemical, it has got its own quantities to be used and the new chemical has got different quantities to be used and the new chemical has got different quantities and different tests to be used and they were handling the new chemical on the old principle	poor communication and training about changes		
…but to have one bunch of guys trying to save money would appear that there are other guys who are living off the fat of the lamb. That's the other thing that I would definitely sort out.	Dissonance in company regarding cost saving		

Dialogue	Secondary Error Attributions		
…it could have been prevented by a checklist, if the correct documentation was issued in a checklist for it, it would have been prevented…	Inadequate documentation	Documentation	
…how do you interpret what you're reading there, do I interpret it in the same way.	Ambiguity of documentation		
Documentation that could come from the manufacturer of the aircraft…we'll from the manuals that they give you to do it in. You find some errors and there is a way of reporting them.	Errors in work manuals		
Safety method, improper safety equipment…improper safety attitudes…errors in documentation and work on aircraft.	Errors in documentation		
…if it is out of control in my area, there is nothing that I can do about it…	No avenues to address issues that arise	Employee Motivation	Organisational Culture
…well, it basically comes down to time, not only pressure, pressure to go home…	Clockwatching		
…at two o' clock I got to go home, some people seem to have forgotten that maybe you can work that extra ten minutes, its not going to kill you to complete the job.	Clockwatching		
…so for basically two thirds of the day they are not available, they cater for a very small part of the day.	Medical treatment available for small portion of the day		
…look for whatever reason its there, you got a lot of unhappy people on the airline	Employee unhappiness		
…they were going to renovate our tea room, its not been done, its been going for three years now.	Poor work environment		
…well, it is their attitude…	poor employee attitudes		
…disillusioned, much more disillusioned than anything else for various reasons…	Disillusionment		
…we need to be trained for that, and that white one hasn't been trained..	Racial discrimination in rules to operate equipment	Discrimination	
…you cleaners you have damaged the airplane, even not knowing that we have done that…	Scapegoating and blaming lesser qualified employees		
…Because he is an electrician they just leave him or her…	Class discrimination in operating equipment		
…but a black can do a mistake, I mean the spoken words of the talking are different…the other one has to be shouted at, the other one not...	Treated differently on a basis of race		
…How many times you've seen the general manager or Coe riding along talking on his cell phone.	Driving with cell phone	Safety Behaviours	
…they just take that plastic or cloth with the chemicals inside the dust bin or for the dustbin that maybe you just finished drinking cold drink or what not…	Unsafe disposal of waste		
…like for instance the chemicals we are using is an error…sometimes it gets in the eyes..	Chemical exposure		
…it happens from time to time where people do not wear the prescribed safety measured equipment	Not wearing prescribed safety equipment		
…People might walk past a puddle on the ground and people might clean it up themselves	Fluid left uncleaned		
…if someone has to walk in the hangar now, you find the APU is powered up and there are people without any ear protection…	Not wearing ear protection		
…they don't stick to the roads, they drive into aeroplanes…	reckless driving		
…they have to put what we call pit soap…at that particular place because maybe if there is a engine leakage…	Do not cover spills		

Dialogue	Secondary Error Attributions		
…the man is not wearing safety gear, you haven't got time to go and get it…	Not wearing safety protection		
…we have to wear the ear protectors but most of us they don't even…	Do not use ear protection		
…even if you give it to a person, they just put it in the pocket…	Not wearing ear protectors		
…they say if ever you make sure you are wearing a safety belt…they don't…	not wearing safety belt		
…Doesn't even have this umm safety suction pad…	Not utilising required equipment		
…he is just working on top of the flaps, he is just working the way he wants…	not following protocol to work on aircraft		
…some of them they don't even use the gloves…	Not using gloves when handling chemicals		
…sometimes your technicians are not following their work regulations to the rule…	Not following regulations	Rules, regulations and Procedures Contravened	Rules, regulations, and procedures
…between the guy that did the preparation of the engine and the guy that did the boroscope and the closure of the engine, somehow the cover was left off, resulting in the engine shutdown and the return to ground.	Engine cover left off resulting in in-flight shutdown		
…it shouldn't happen because there is a check list for this type of thing	not following checklist		
…due to certain regulations being contravened	Contravention of regulations		
…I would imagine there are small infringements of the rule all over the place, but not necessarily risk related infringements as such…	Rule infringements		
…we might not follow whatever they tell us because we just want to do that work quickly…	Ignoring of procedure		
…I can ask a person can you drive a forklift, I don't have to look whether he has a certificate or not…	Driving forklift without certificate		
…there should be no one else there, it should be the person who is starting or operating it…	People in hangars when running engine		
…they just take that plastic or cloth with the chemicals inside the dust bin or for the dustbin that maybe you just finished drinking cold drink or what not…	Ignoring regulations		
…they are not doing what the company has said, they are not following the procedures or the rules…	ignoring of procedures and rules		
…disobeying do not walk signs on the wing…	Disobeying rules		
…in some cases people don't do the necessary checks properly…they seeing what they want to see, it could be a panel that's not closed properly	Not doing proper checks		
Not pride in their jobs, not proper time keeping, arriving to work late…	Late coming		
…we got some specific sheets and if the okes don't apply the sheets then mistakes come…	Not following procedures		
…forget to put the container to collect the water that's falling out and then he forgets to clean up…	Not following procedures		
…so we assume that they know these things, we assume that they are going to clean up after themselves.	Not obeying company rules		
…then he might go and get it, but tomorrow it is the same thing again..	not obeying instructions		
…so this quick little bypass of the standard regulation is a problem…	bypass of regulations		

Dialogue	Secondary Error Attributions		
…I believe if the guy had any sort of discipline in him, he'd think about it…	Poor discipline	Discipline	
…to prevent all those things people will have to be disciplined…it is always an ongoing process just to talk to the person, talk to the person talk to the person.	Weak disciplinary procedures		
…the best thing if ever you can just discipline a person right away…	Weak disciplinary procedures		
…if it is a mechanic or a technician bump the aircraft not seen by anyone…	not taking responsibility for actions		
…I think that time is the main creator of a problem over there, I can not think of anything else at this time	Time pressures	Unreasonable Pressure	Poor Management
…they do overload workers with heavy work…	heavy workload		
…some of the work doesn't even performed…	Work incomplete		
…amongst those aircraft there is a time you see, and then we are not managing to do that…	Work incomplete		
…Because of the pressure…	Time and work task pressures to get job done		
…I adhere to the rules of ventilation for eight hours, if they have not down timed the aircraft for that, it is not my responsibility.	Time loss	Unnecessary Wastage	
…there might be a ground power used that is running unattended and someone will take the trouble to shut it down…	GPU running unattended		
…you walk past in the hangar, there is a pile of components lying on the floor, they are lying in the rain. Does he first of all drag them out of the rain and say to somebody, hey! This is your department.	Wastage		
…you find that there is a lot of screws, rivets, and lots of little things, components, lamps, that are taken from the store that's sometimes not utilised..	wastage of components		
…over a year it will accumulate to at least a couple of thousand or hundred thousand dollars I would say, because there is stuff there that we work in dollars and each little lamp there costs twenty cents or a dollar	financial loss due to wastage of components		
They don't train the juniors coming through and this I feel is a factor that actually causes errors to be carried out	Poor on the job training	Inadequate Knowledge and Training	
…because I learnt unfortunately to do it on my own though…	Learning with lack of guidance		
…I'm not always sure that selecting for training is always 100% fair…	Unfair selection processes for training		
…it comes down to basic training…and its supposed to be instilled and you supposed to move on, its supposed to be instilled…	Basic safety habits not instilled		
…they physically splash, taking the bucket and throwing it on it, I mean there is no finesse with it. No drip tray, you need to place underneath to catch out all the stuff.	Poor work method		
…it is the ignorance of the person…	lack of knowledge and awareness		
Safety method, improper safety equipment…improper safety attitudes…errors in documentation and work on aircraft.	Incorrect safety method		
Safety method, improper safety equipment…improper safety attitudes…errors in documentation and work on aircraft.	Improper safety attitudes		

Dialogue	Secondary Error Attributions		
…Education does not play too big a factor in the airline at the moment, I might be wrong but I don't believe so.	Company does not reward the enhancement of qualifications, skills, abilities		
…but you not given the opportunity, I could be qualified to do what you doing right now, but how many times do we use that person.	Employees full repertoire of skills not utilised		
…he might have an N6 and somebody else has an N2 but do they get paid the same. They get paid the same.	Advanced qualifications not rewarded and recognised		
…and the guy with the N2 might be the technician and the other guy is now the craftsman who is a lower grade totally.	Advanced qualifications not rewarded and recognised		
…planning of work is one of those major problems…	work planning	Planning	
…Always the problem here is, that the time they schedule the aeroplanes is not very flexible with everyone	poor planning and scheduling		
…you will have the people rushing around because you can't cope with the planning problem on the down time of aeroplanes so that you can get all these things done in the proper manner.	poor planning and scheduling		
…but then you say where does this come from, so obviously somebody has messed up or forgotten about that, that is where the errors are…	Inefficient Planning		
…I adhere to the rules of ventilation for eight hours, if they have not down timed the aircraft for that, it is not my responsibility.	Inefficient Planning		
…some of these people can not handle pressure and they can not handle stress, they cannot delegate work and this is a big problem…	lack of management skills	Management Skills and Decision Making	
…getting to each management specifically of each section, looking at their stats and the people that they know are working in a section, and they mostly don't know who works for them, lets be honest…	Lack of management knowledge of employees		
…it is important for you to know who is working for you to know what is their status, what is their qualifications and what they can do with it, what are their capabilities.	Lack of management knowledge of employees		
…he would talk to you one on one. 99 percent of the time he knew your name, he knew what you did. And he was able to comment about what is going on anywhere…	Weak appreciation of employees		
…he would talk to you one on one. 99 percent of the time he knew your name, he knew what you did. And he was able to comment about what is going on anywhere…	Weak management awareness of grassroots		
…if he wasn't in my area or one of my guys, or one of the minor maintenance guys, I don't know what his manager will do, or if he'll even bother.	Poor supervision and management		
…How many times you've seen the general manager or Coe riding along talking on his cell phone.	Management not leading from the front		
…somebody has made a decision on a higher level to say, that will happen, and have not looked at any of the consequences…	Decisions not give due consideration		
…they don't deal with merit either, they don't look at merit and they don't look at experience. Prior to all this, it was like a decision that the manager had taken upon himself to promote people within his section..	Injustice of Promotional Process		
…I believe that the air line is spending more money on things then they ever had, but there is always things that seem to get skipped.	Perceived budgeting weaknesses		

Dialogue	Secondary Error Attributions		

Appendix L

Team Leader Focus Groups- Secondary Error Attribution Themes

Dialogue	Secondary Error Attributions	
…he doesn't follow the steps of the paperwork properly, that is an error to me…	Not following procedures	Breaking the Law
…sometimes you have to skip a step or something when you change something, like the wheel when you under pressure to get it changed…	not following steps in procedure	
Because they is using the wrong thing, they damage the component, they damage a pipe…	using the wrong tools	
…I have to take a vacuum cleaner that vacuums an office because it will not pass, it will not give the aircraft exactly what is needed…	using incorrect equipment	
…you get in our cases now, you change the component, you get tools to test afterwards and we haven't got that tools, so we take chance to send that thing up…	Sending aircraft into service without proper testing	
…also we African, just go to the toilet, take the handle out, don't know where to…	Vandalism and theft	
…they put on a new toilet seat and it disappeared, I can't believe it where it is going to…	Vandalism	
…if they say seven o'clock and the guys come a quarter past seven and the flight has to go out at half past seven, no one can make it…	late coming	
…over there you got more tools in your toolbox than this place got in the stores!	depleted tool stock	Tooling and Equipment
You got one tool in the store and you got 19 crews that's running and you go to the stores, it is not available,	insufficient tooling to crew ratio	
…there is not enough stands and the stands are not high enough and you got one stand and you got twelve aircraft, and you got four engines and you got one stand that fits…	insufficient stands to match needs	
…we normally use the GPU, just to give us the power, and they battle because there is not any GPU's	insufficient GPU's	
…we had nine GPU's here, now we only got two and the others they can't fix…	Shortage of Equipment	
…a lot of times you go to the store, there is only one item, but there is ten guys working with the same item, because you need the same item that day…	insufficient supply of tools	
…he doesn't follow you or he doesn't understand you right and he does the wrong thing	Mis-Communication	Skills
…we feel sometimes that it is definitely they can make a plan to keep the aircraft longer on the ground, especially if you have snags…	inefficient planning	
…people are in leave and…there is not enough manpower to carry out the job…	inefficient manpower planning	
I think there is bad management, that is my honest opinion. If you got 50 aircraft and you got two cherry pickers as service support…	Bad Management	

Dialogue	Secondary Error Attributions	
Because they is using the wrong thing, they damage the component, they damage a pipe…	financial losses due to damage to equipment	Wastage
Because they is using the wrong thing, they damage the component, they damage a pipe…	financial losses due to damage to equipment	
…it will take me more than three to four hours for me to take the vacuum cleaner that they use in the offices and to change the plugs because they are not the same with the aircraft plug also…	time wastage due to unavailability of equipment	
…and usually I must get the electrician or the technician to do it for me because I am a cleaner, I don't know how to do it…	time wastage due to unavailability of equipment	
…there is nearly two three four hundred metres back to the stores and you run to the stores, get to the store and find that there is no tool, and then you must run to another store or look for people who are using the tools.	Time wastage	
…you change a certain component it will take you an hour because you haven't got that equipment you will end up sitting sometimes eight hours battling to change that component…	time wastage due to tools not being purchased	
…and they take a risk to start the aircraft on the APU. It is where the major loss (comes) they use more fuel rather than using the GPU.	wasteful error compensation	
the APU can use sometimes 500kg of fuel an hour and sometimes they are standing here between eight and twelve hours, the aircraft. Where you can have a GPU that runs on diesel…	financial losses	