

Piako Gliding Club  
Matamata, New Zealand

Start of Season Briefing 2013  
Glider Pilot Airmanship



**AIRMANSHIP**

HOW TO REALLY ENJOY SOARING

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1

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**OBJECTIVE  
PURPOSE OF DAY**

1. TO CONTINUE TO IMPROVE OUR SAFETY CULTURE
2. GENERATE SOME THINKING ABOUT OUR AIRMANSHIP
3. OFFER SOME WAYS THAT WE CAN IMPROVE;
  - WHICH WILL HELP TO MAKE THIS SEASON SAFER AND MORE ENJOYABLE FOR EVERYONE

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2

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AIRMANSHIP IS COMBINATION OF

**SITUATIONAL AWARENESS**

**KNOWLEDGE**

**SKILLS**

**DISCIPLINE**

AND IT HELPS TO HAVE AN UNDERSTANDING OF

**HUMAN LIMITATIONS**

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3

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## SITUATIONAL AWARENESS

IS MAINTAINING AN ACCURATE MENTAL PICTURE OF  
WHAT IS GOING ON AROUND YOU:

THE GLIDER  
ENVIRONMENT  
OURSELVES



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4

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## SA OF THE GLIDER

WHAT'S HAPPENING NOW?  
WHAT'S ABOUT TO HAPPEN?  
HOW DO WE KNOW WHAT'S GOING ON?

- INSTRUMENTS
- SENSORY PERCEPTIONS:-
  - VISUAL
  - FEEL
  - SOUND

SO WHAT CAN GO WRONG TO CONFUSE OUR  
MENTAL PICTURE? - PLENTY



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5

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## SA OF THE ENVIRONMENT

WHERE ARE WE?

- HEIGHT AGL, LANDOUT OPTIONS
- AIRSPACE BOUNDARIES

WHAT'S HAPPENING AROUND US?

- WEATHER:-
  - WIND
  - LIFT CONDITIONS
- OTHER TRAFFIC :-
  - GLIDERS
  - POWER AIRCRAFT

RECOGNISE CHANGING CONDITIONS  
LOOK AHEAD



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6

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## SA OF OUR SELF

HOW DO YOU FEEL TODAY?  
LEVEL OF STRESS  
HEAT OR COLD  
DEHYDRATION STATE  
TIREDNESS



## IMSAFE

HOW DO WE KNOW WHAT'S GOING ON?  
SELF EVALUATE REGULARLY. EASIER SAID THAN DONE

**SO WHAT CAN GO WRONG? - PLENTY**

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7

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## HOW TO IMPROVE OUR SA

WORK ON IT!

A FEW OBVIOUS ACTIONS WE SHOULD ALL DO

1. PLAN AHEAD
2. MAINTAIN SYSTEMATIC LOOKOUT
3. CONSTANTLY ASSESS WEATHER
4. LISTEN TO RADIO CALLS
5. AVOID DISTRACTIONS

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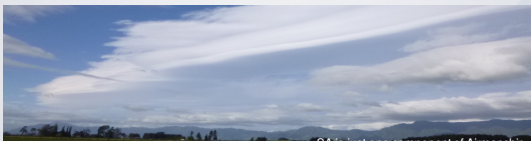
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## SITUATIONAL AWARENESS SUMMARY

SA IS PROCESS OF GATHERING INFORMATION  
AND BUILDING AN ACCURATE MENTAL PICTURE  
OF ALL THE FACTORS AFFECTING A SAFE FLIGHT



SA is just one component of Airmanship

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9

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**KNOWLEDGE**

IS KNOWING AS MUCH AS POSSIBLE ABOUT THE  
TASK YOU'RE DOING



IN AVIATION WE NEVER KNOW EVERYTHING AND SOME NEW  
THINGS CAN ALWAYS BE LEARNED

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10

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IMPROVE OUR KNOWLEDGE BY:

**READING  
ASK QUESTIONS  
SEMINARS AND MEETINGS**



→ STUDY INCIDENT AND ACCIDENT REPORTS  
→ MAKE SURE YOU READ:

- GLIDING BOOKS
- FLIGHT MANUALS
- CLUB RULES - **HWDT**
- MOAP, CAA RULES, A-C's
- SPORTING CODE
- COMPETITION RULES

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11

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**SKILL**

IS BEING PHYSICALLY ABLE TO CARRY OUT  
TASKS COMPETENTLY



FLYING GLIDERS IS HARD!!!!

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12

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*IMPROVE SKILLS BY:*

**TRAINING**

**PRACTICE**

HONEST DEBRIEF CRITIQUE

MORE TRAINING

MORE PRACTICE

FURTHER PRACTICE

PRACTICE SOME MORE

DO IT AGAIN

AND AGAIN

once more

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13

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**DISCIPLINE**

*Dirty word?*

*Means we can't have fun!*

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14

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**AIRMANSHIP REQUIRES BOTH GOOD SELF DISCIPLINE AND GROUP DISCIPLINE**

**SELF DISCIPLINE**

**Self discipline** is most important in gliding because most of the time there is no-one else with you in the cockpit

Glider pilots are constantly making many more decisions than power pilots

Set your own limits. Never break golden rules of cross country soaring

Make decisions early. Have a plan B

Rules are set for good reason but the rules are only one safe guard

Avoid the lure of apparently great conditions if you're not ready

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15

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## GROUP DISCIPLINE

Group discipline affects the culture of the club

- At the launch point
- In the bar
- Support each other to follow the rules
- If everyone knows the rules there should be no conflict
- Talk up achievements and don't put less able pilots down
- Be prepared to speak up within the group, and be prepared to accept others opinions



Now consider human factors

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16

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## HOW DO HUMANS FUNCTION IN THE AIR?

**UNNATURALLY!**



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17

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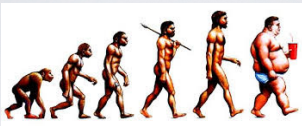
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Humans have evolved to deal with stressful situations in ways that are unhelpful when flying gliders.



When startled we tend to react badly

It is often impossible to override built-in reflexes

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18

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### COMMON HUMAN FACTOR ISSUES

- A NEED TO "FIT IN" (PACK MENTALITY)
- DIFFICULTY WITH CRITICISM AND MISTAKES
- FEAR AND ANGER REACTIONS (FIGHT, FLEE OR FREEZE)
- VISUAL AND OTHER ILLUSIONS (DOMINANCE OF EYES)
- UNABLE TO HANDLE MULTIPLE SIMULTANEOUS ACTIVITIES
- DISTRACTION, INATTENTION, FOCUS ON WRONG THINGS

ALL THESE THINGS ARE **NORMAL** HUMAN BEHAVIOUR



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### IT'S WELL KNOWN THAT PEOPLE WITH:-

HIGH STRESS = MAKE POOR DECISIONS  
 FATIGUE, DEHYDRATION = MAKE POOR DECISIONS  
 CRITICAL LACK OF TIME = MAKE POOR DECISIONS

↑  
**THIS IS OUR "NORMAL" SITUATION?**

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20

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### GOOD AIRMANSHIP REQUIRES AN UNDERSTANDING OF THESE HUMAN FACTORS AND FOR PILOTS TO HAVE:-

- RESPECT (SELF AND FOR OTHERS)
- INTEGRITY (SELF DISCIPLINE)
- OPEN COMMUNICATION (OUTGOING AND INCOMING)




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## PERSONAL STRATEGY FOR IMPROVED AIRMANSHIP

- Work on Situational Awareness
- Learn as much as possible
- Practice flying skills
- Maintain self and group discipline
- Self evaluate and be open about mistakes
- Accept importance of currency (or lack of it)
- Know yourself and your health – I M S A F E
- Plan and prepare – including for all eventualities



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SO THAT'S HOW YOU SUCK EGGS GRANDMA

## QUESTIONS? DISCUSSION?





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**Methods to Deal with Overload and Stress**

- Prioritize = **Aviate** **Navigate** **Communicate**
- Make sure you're well prepared.
- Constantly monitor and evaluate what your doing.

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