

# IAGSA Member Self-Assessment Questionnaire

Company Name: HELICA SRL.				
Location: VIA FRATELLI SOLARI 10, 33020 AMAF	RO (UD), ITALY			
Date of Assessment: 02.10.2017				
Assessment Questionnaire completed by: ALES STIMEC				
Key Management Personnel	<u>Position</u>			
LEONARDO MAZZOLINI	ACCOUNTABLE MANAGER			
ALES STIMEC	HEAD OF FLIGHT OPERATIONS			
LORENZO CRACOGNA	COMPLIANCE MONITORING			
Total # Employees:	25			

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	Planning – All Operations			
Title	IAGSA Recommendation	Compliance Level	Explanation of Compliance	
Survey Planning	The following is a list of IAGSA Recommended Practices which all members should take into account when planning airborne survey operations regardless of type of survey or terrain.			
	Prior to commencing a survey, do you conduct a detailed risk assessment which identifies	☐ Always	Detailed risk assessment which identifies the safe survey height only in the new / unknown areas.	
Prior to conducting a survey do you establish a crew rotation schedule which considers factors such as remoteness of site, severity of	Sometimes			
		Never		
	do you establish a crew rotation schedule which	<b>☑</b> Always		
	remoteness of site, severity of	Sometimes		
	climate, quality of accommodation, food and personal considerations?	☐ Never		



	Do you have a minimum temperature limit for cold	☐ Always	Didn't have the survey in cold areas yet.
	weather operations?	Sometimes	
		<b>☑</b> Never	
		□ N/A	
	Do you limit the use of aircraft heaters or air-conditioning in the interest of "clean" data?	☐ Always	Not yet the case or requirement.
	the interest of cloud data.	Sometimes	
		✓ Never	
	Do you require the use of oxygen for all aircrew for survey flights or portions	<b>☑</b> Always	
thereof conducted above 10,000 feet ASL?	Sometimes		
	☐ Never		
	Do you have a drug and alcohol policy?	<b>☑</b> Yes	
		☐ No	



Are aircrew members required to wear long trousers or a flight suit, closed shoes, have gloves available and clothing appropriate for the environmental conditions?	Always  Sometimes  Never	
For fixed wing surveys, is a risk assessment conducted to determine whether or not helmets should be worn by the flight crew members?	<ul><li>☐ Always</li><li>✓ Sometimes</li><li>☐ Never</li><li>☐ N/A</li></ul>	
For helicopter surveys, are the flight crew members required to wear a flight helmet?	<ul><li>☐ Always</li><li>✓ Sometimes</li><li>☐ Never</li></ul>	
Are flight crew members paid or given an incentive based upon hours or kilometers flown?	☐ Always ☐ Sometimes ☑ Never	The flight crew is paid according to National Labour Contract for helicopter pilots which specifies all payments.



Emergency Response Planning	Do you develop project specific emergency response plans for each project?	Always  Sometimes  Never
	Does your company have an overall crisis management plan?	Yes  No
Flight Following	Do you operate a satellite tracking system on all aircraft?	<ul><li>☐ Always</li><li>☐ Sometimes</li><li>✓ Never</li></ul>
	Is the position reporting frequency of the tracking system set to 2 minute intervals as a minimum?	☐ Yes ☑ No
Single Pilot Only Surveys	Do you conduct single Pilot Only Surveys (no equipment operator)?	☐ Always ☐ Sometimes  ☑ Never



If so, does the Pilot have equipment operation duties in addition to those normally associated with flying the		Always Sometimes		
	aircraft?		Never	
			N/A	
	Are additional risks associated with single pilot only		Always	
	operations detailed in the risk assessment?		Sometimes	
			Never	
			N/A	
	Ope	eratir	ng Standards	
Minimum safe survey speeds	Are minimum safe survey speeds for single engine aircraft calculated at 130% of	$\overline{\mathbf{A}}$	Always	
	clean stall speed (Vs)?		Sometimes	
			Never	
				1



	Are minimum safe survey speeds for Multi-engine aircraft: 110% of best single engine rate of climb speed (Vyse), or minimum safe single engine speed (Vsse, if	Always Sometimes Never	
	published)?	N/A	
Minimum Fuel Standard	Is fuel planning for survey flights based upon 110% of planned consumption?	Always Sometimes Never	
	Is minimum reserve fuel calculated as 30 minutes for fixed wing and 20 minutes for helicopter at normal cruise consumption rates?	Always Sometimes Never	
	Do planned minimum fuel reserves consider site specific contingencies?	Always Sometimes Never	
Flight and Duty Times	Are the following Flight & Duty Times adhered to?		



Single Pilet Operation	A maximum of 8 hours flight		Italian rules allow only 6 hr per day.
Single Pilot Operation Maximum Flight Times	time per day.	<b>☑</b> Always	italian rules allow only 6 fil per day.
		Sometimes	
		☐ Never	
	A maximum of 5 hours flight time on survey per day (excluding transit time)	<b>✓</b> Always	
	(excluding transit time)	☐ Sometimes	
		☐ Never	
	A maximum of 40 hours flight time in any 7 consecutive day	<b>✓</b> Always	Italian rules: 24 hr in 7 consecutive days.
	period	☐ Sometimes	
		☐ Never	
	A maximum of 100 hours flight time in any consecutive 28 day period.	<b>✓</b> Always	
	, F	☐ Sometimes	
		☐ Never	
		1	



A maximum of 1000 hours in any consecutive 365 day period.	any consecutive 365 day	Always  Sometimes  Never	
	If extensions to the single pilot flight times are used has the extension criteria recommended by IAGSA been met?	☐ Always ☐ Sometimes ☐ Never ☑ N/A	Italian rules do not allow extensions of FDT.
Dual Pilot Operations Maximum Flight times	A maximum of 10 hours flight time per day.	Always  Sometimes  Never	We fly multi-pilot only when required by local operational rules, e.g. India. FDT limitations remain the same as in Italy. Recently Italy just published the draft regulation to allow 8 fh/day for MP operations.
	A maximum of 8 hours flight time on survey (excluding transit time).	Always  Sometimes  Never	See above.



	A maximum of 45 hours flight time in any consecutive 7 day	☑ Always	See above.
	period.	Sometimes	
		☐ Never	
	A maximum of 120 hours flight time in any consecutive 28 day	<b>☑</b> Always	See above.
	period.	☐ Sometimes	
		☐ Never	
	A maximum of 1200 hours flight time in any consecutive	<b>☑</b> Always	See above.
	365 day period.	☐ Sometimes	
		☐ Never	
Maximum Duty Times	The maximum duty time in any one day shall not exceed 14 hours	<b>✓</b> Always	
	TIOUIS	Sometimes	
		☐ Never	



	The pilot shall have a minimum of 2 days rest within a 14 day period. These may be taken separately or together. If taken separately, one day rest shall be defined as 30 consecutive hours free from duty.	Always  Sometimes  Never	
Emergency Beacon / Radio	Is each aircrew member required to carry on their person essential survival items including: a personal locator beacon means to start a fire, knife and a signal mirror?	☐ Always ☑ Sometimes ☐ Never	As required by applicable rules.
Fuel Quality Control  – Storage Tanks	adequacy of this quality control a	and take all available m	naller centres. The crew must determine the neans to ensure against boarding contaminated fuel.  In the second sec



Check that the fuel servicing vehicle / facility is identified with the fuel type handled.	☐ Always ☑ Sometimes	
Check that the facility is clean and maintained.	☐ Never☐ Always	
	✓ Sometimes  □ Never	
Check that bonding wires and connections are in good condition.	Always  Sometimes  Never	
Check that filter systems are in place and date of last element replacement.	<ul><li>☐ Always</li><li>✓ Sometimes</li><li>☐ Never</li></ul>	
		1



	Check that a sample is clear and bright downstream of the filter.	☐ Always	
	inter.	<b>☑</b> Sometimes	
		☐ Never	
	Request or conduct a water test with paste or syringe and capsules.	☐ Always	
	capsules.	<b>☑</b> Sometimes	
		☐ Never	
	Check that a sample from the low point of the tank is clear bright and free of water. If there is no low point water drain, do a dip of the tank using water paste.	☐ Always	
		<b>☑</b> Sometimes	
		☐ Never	
Fuel Quality Control - Drums	When using drummed fuel are the	ce to ensure the following requirements?	
	Verify the expiry date of the drums.	<b>✓</b> Always	
		☐ Sometimes	
		☐ Never	
		1	l



A "go no-go" filter be used for all refueling from drums.	☐ Always
	<b>☑</b> Sometimes
	☐ Never
All drum fuel is visually checked for clarity and color	☐ Always
and water tested with paste or fuel syringe and capsules before use.	<b>☑</b> Sometimes
before use.	☐ Never
Only clearly branded drums with both seals intact are be used unless the pilot knows	<b>☑</b> Always
the "history" of the drum since	☐ Sometimes
retests the fuel for contamination before use.	☐ Never
Aircraft sump drains be checked before the first flight of the day and after each	<b>☑</b> Always
refueling.	☐ Sometimes
	☐ Never



	Drums are stored on their sides, clear of the ground with bungs horizontal in an area not subject to flooding. Undercover storage should be considered if drum stock are to be kept for a long time.	✓ Always  ☐ Sometimes  ☐ Never	
	When not in use, fuel pumps are protected from water and other contamination.	Always  Sometimes  Never	We will visually inspect them, however normally we don't have the possibility to monitor the storage of the pumps while we are not present on the field.
	Bungs should be sealed and the drum placed on its side for short term storage (i.e. overnight) of a partially filled drum.	Always  Sometimes  Never	
Night Surveys	with a smooth air requirement, s	such as for gravity surve afely as long as there a	a day VMC, but if the low height is removed coupled eys, it may be desirable to conduct night flights. are adequate procedures to prevent a "controlled ements:



	Are night surveys flown at least 1000 feet above all obstacles within the operational area and a 10 nautical mile buffer around the operational area? Does the operational area include the maneuvering area for line turns and lead-ins?  Is a VMC reconnaissance flight performed in each block?	☐ Always ☐ Sometimes ☐ Never ☑ N/A ☐ Always ☐ Sometimes ☐ Never ☑ N/A	Helica is not allowed to carry night surveys.
Monitoring of radios	During survey flights, are radios and transponders turned on and selected to the appropriate ATC or flight service frequencies. Additionally, equipment permitting, common air to air and emergency frequencies (121.5MHz) should also be monitored.	Always  Sometimes  Never	



Turning Radius			nt margin above the stall speed, however in a steep varning and a stall in the turn at low level will likely
	Towed	Geophysical Arra	ıys
Towed Geophysical Arrays – All aircraft types	This section applies to all airborne surveys utilizing geophysical arrays suspended below and/or towed by rotary or fixed wing aircraft.		
	Do you operate towed geophysical arrays?	<b>✓</b> Yes	
		☐ No	
	Does the towed array have an STC/LSTC, engineering order		
	or other similar certificate or statement describing array	<b>☑</b> Yes	
	specifications and flight test data?	☐ No	
		□ N/A	



Is there an Operating Manual for each array?	<b>✓</b> Yes	SOP.
	☐ No	
	□ N/A	
Does the Operating manual identify the maximum safe operating airspeed for the	<b>☑</b> Yes	It refers to STC supplement to the FM.
array?	☐ No	
	□ N/A	
Does the Operating Manual contain a parts list and maintenance manual	<b>☑</b> Yes	It refers to STC supplement to the FM.
containing the critical design specification for all parts and elements of the array?	☐ No	
	□ N/A	
Does the Operations Manual contain a pre-flight checklist?	<b>☑</b> Yes	
	☐ No	
	□ N/A	



	Does the Operations Manual contain a schedule for routine preventative maintenance, recorded inspections and testing?	☐ Yes ☑ No	
		□ N/A	
	Is there a procedure in place to ensure that all required maintenance, inspections and	✓ Yes	
	testing are up to date prior to job start?	∐ No	
	,	□ N/A	
	Is all maintenance performed by a qualified person endorsed by the manufacturer or	<b>✓</b> Yes	
	operator?	☐ No	
		□ N/A	
Towed Geophysical Arrays – Rotary Wing Aircraft	Has the cable weight and length been determined by an aeronautical engineer as to minimize the potential for	✓ Yes	
	cable recoil into main and tail rotors following the loss of load?	□ No □ N/A	



Is there a weak link incorporated into the load bearing cable?	Yes  No N/A	
Is the weak link located as close as possible to the attachment hook of the helicopter?	Yes  No N/A	
Has the breaking strain of the weak link been specified by an aeronautical engineer?	Yes  No N/A	
Is the maximum towed array airspeed and VNE (Velocity Never Exceed) placard placed on the aircraft instrument panel in the Pilot's view?	Yes  No N/A	



	Does the cargo hook arrangement allow the pilot to jettison the load without removing his/her hands from the flight controls? Do procedures include the requirement to test the helicopter cargo hook release mechanism?		Yes No N/A	
Towed Geophysical Arrays – Fixed Wing	Is the aircraft fitted with a shearing mechanism which can cut the tow cable when the array needs to be jettisoned?  Does the tow cable have a breaking strain which minimizes damage to the aircraft in the event the array snagged with ground objects?		Yes No N/A Yes No N/A	
Geophysic		al S	urvey Flight T	raining
Training and Experience – All Operations	Does your training program contain a syllabus for low level geophysical flight training?		Yes No	



	Does the Pilot training syllabus reflect the IAGSA training guidelines?		Yes No	
	Are there documented criteria to assess Pilot competency?		Yes No	
		ш	140	
Simulator Training	In addition to the training in the actual aircraft, do pilots, where practical, undergo simulator		Always	
	training in a type specific	Ш	Sometimes	
	simulator representing the aircraft being flown on survey?		Never	
	If so, at what frequency?		N/A	
	Overwate	r an	d Offshore Su	rvevs
Minimum requirements for Over water and Off Shore Surveys				and off shore surveys flown in both fixed wing and
Training – Overwater & Offshore Surveys	Is Underwater Escape Training completed within the preceding three years before undertaking the over water or official and a survivous straining the second straining str		Always Sometimes	Helica didn't conduct any off-shore surveys yet.
	offshore survey.		Never	



	Are Ditching & Emergency Evacuation Procedures reviewed, crew members thoroughly briefed and simulated training to be conducted at the work site prior to the start of all over water or offshore work. This review should include a review of general emergency procedures that could potentially lead to a ditching and a discussion on the significance of sea state/wave height on ditching.	☐ Always ☐ Sometimes ☐ Never	
Training - Off Shore Surveys	In addition to the above items, the	ne following are to be in	
	Does Initial Training consist of a minimum of 10 hours training conducted by a pilot who has a minimum of 100 hours Offshore experience?	☐ Yes ☐ No	Helica didn't conduct and off-shore surveys yet.



			SAFETT IN THE AIR BEGINS ON THE GROUND.
	Does Recurrent Training consist of a minimum of 5 hours training conducted annually by a pilot with the same qualifications as for the initial training: or prior to the start of an Offshore survey if pilot has completed the initial training but has not flown Offshore for more than 90 days?	☐ Yes ☐ No	
	Alternatively, the above experience requirements may be waived if the Operator has in place a competency based training program which includes Offshore operations.		
Type of Aircraft – Over water / Offshore Operations	or the exposure that would follow	w are low then the emp ning. Whereas, the airc	n conditions where the odds of surviving a ditching hasis must be placed on choosing an aircraft that raft criteria may be somewhat less stringent in lessing and rescue are good.



For any survey that is over water or offshore in an area where rescue is not likely to occur within an anticipated acceptable exposure time and/or where anticipated sea states would make a successful ditching unlikely, is the use of a multi engine aircraft with performance characteristics such that in the event of an engine failure during an over water survey it can climb from survey height to 500 feet and return to shore or during an offshore survey it can climb from survey height and maintain prolonged flight on the remaining engine(s) to return to a suitable airport at the minimum IFR altitude utilized?	☐ Always ☐ Sometimes ☐ Never	Helica didn't conduct and off-shore surveys yet.
Are single engine piston aircraft used for over water/offshore surveys?	<ul><li>☐ Always</li><li>☐ Sometimes</li><li>☐ Never</li></ul>	



Aircraft equipment – Offshore	Are aircraft equipped with at least the following gyroscopic instruments, each of which must be independent of the others:  2 x attitude indicator; 2 x heading indicator; 2 x turn and slip indicator?	☐ Yes ☐ No	Helica didn't conduct and off-shore surveys yet
	If a second pilot is to be part of the crew, is there a complete second set of basic flight instruments (attitude indicator, gyroscopic heading indicator, turn and slip or turn coordinator airspeed, altimeter, vertical speed) installed at the co-pilot's seating position?	☐ Yes ☐ No	



Are there at least two (2) independent power sources to drive the gyroscopic instruments?  - this may mean two vacuum pumps with all air driven gyroscopes or a mixture of air driven and electric gyroscopes provided loss of one power source leaves operational one set of three gyroscopic instruments (attitude, heading and turn rate indicators)	☐ Yes ☐ No	
Is there a radio or radar altimeter with a means of alerting the crew when height above the water falls below a minimum safety height selected by the crew? Is there a means of testing the alerting device prior to flight?	☐ Yes ☐ No	



	Is there a minimum of one instantaneous vertical speed indicator (IVSI) to provide an instant alert of descent	☐ Yes ☐ No	
	Do you require the use of weather radar where thunderstorms are present or could be expected?	☐ Always ☐ Sometimes ☐ Never	
	Are Rotary wing aircraft equipped with floatation aids such as "pop-outs floats"?	☐ Always ☐ Sometimes ☐ Never	
Emergency Equipment – Offshore Surveys	An upper torso restraint system, with a preference for a four point harness, for each crew member	☐ Yes ☐ No	Helica didn't conduct and off-shore surveys yet
	Are aircraft equipped with a 406 MHZ ELT?	☐ Yes ☐ No	



	Is the crew provided a covered life raft with a self erecting canopy that is equipped with a 406 MHZ ELT and normal emergency survival equipment? Does raft should include an inflatable floor for cold water operations?	☐ Yes ☐ No	
	Are constant wear dual chamber life vests that contain an ELT aELT/EPIRB, flares and a signal mirror, worn by each crew member?	☐ Yes ☐ No	
	Are immersion/exposure suits worn if water and air temperatures warrant?	☐ Yes ☐ No	
	Are all helmets and headsets fitted with double disconnect cords?	☐ Yes ☐ No	
Weather – Offshore Surveys	Are Offshore survey flights conducted under VMC with minimums of 5 miles visibility and 1000 foot ceiling in the survey area?	☐ Yes ☐ No	Helica didn't conduct and off-shore surveys yet



	Is a thorough weather briefing solicited (if available) and does it should include sea state/wave height and wind maximums in the survey area?	☐ Yes ☐ No	
	Additional	Training Require	ments
Fire Extinguisher Training	Do all crew members on survey flights, including equipment operators, receive annual training in the use of fire extinguishers in fighting in flight fires?	✓ Yes  □ No	Every two years.
Survey Crew Resource Management Training	Is Survey Crew Resource Management training provided to all crew members assigned to survey operations including: geophysicists; pilots; equipment operators; maintenance engineers; field technicians and field support staff at intervals not exceeding three years?	✓ Yes □ No	
Flight Performance Monitoring			



Performance Monitoring	Is performance parameters, including aircraft speed, height above terrain and drape, periodically reviewed using data collected during surveys?	✓ Always  ☐ Sometimes  ☐ Never	
	Is the frequency of review such that any discrepancies on a particular survey or by a particular pilot can be identified as early as possible?	✓ Always  ☐ Sometimes  ☐ Never	