



Assessor Assessment Guide Unit Standard 3288 Load water and additives for aerial operations (Level 3, Credit 2, Version 3)

In order to achieve competency in this unit standard a candidate must display an understanding of the knowledge components by completing an oral or written assessment and practically demonstrate safe practices when loading aircraft with water and water with additives, selection of a site and set up of equipment to fill aircraft, and to fill aircraft hoppers or heli-buckets.

This assessment may take place at a real fire where aircraft are being used or at a simulated practical event. This must be conducted by filling a real aircraft or heli-bucket connected to a hovering helicopter.

The assessor may elect to question candidates during completion of the practical assessment to ensure theoretical knowledge can be applied during practice. This technique also provides the assessor with reinforcement that knowledge has been retained.

Where a candidate is being assessed on the basis of a RCC process evidence must be produced that indicates a candidate has successfully worked as part of a crew setting up a site and equipment, and filled aircraft or heli-buckets in a safe manner without endangering the candidate or other crew members.

Assessors may use this guide to record evidence of a candidates overall performance but should be aware that this may not, on its own be an adequate record for moderation purposes without appropriate notes or appendices. Notes should include a summary of the process used and a statement about the quality of the candidate's performance.

ASSESSORS SHOULD ALWAYS REVIEW THE REQUIREMENTS CONTAINED IN THE UNIT STANDARD DOCUMENT PRIOR TO CONDUCTING ASSESSMENTS

For this unit the following resources are available from FRSITO to assist Learners, Instructors and Assessors:

- A student booklet "Aircraft Safety, Fire Management – Working with the Aviation Sector"
- A guide to practical scenarios.
- Assessor Assessment Guide
- Learner Assessment Guide

Assessors General Notes:

Candidates must hold *Unit Standard 20388 – Work safely with aircraft at emergency incidents*, before this unit can be registered on their NZQA record of learning.

Candidates must hold Unit Standard 3285 before participating in activities on the fire ground.

Assessors may elect to assess the practical performance criteria of this unit in conjunction with *Unit Standard 20388 – Work safely with aircraft at emergency incidents* as a way of maximising the use of the aircraft while available.

In assessment activities requiring the candidate to act as part of a crew, the candidate must take a lead role and use the crew to assist in achieving the task.

Check practice notes to ensure any additional criteria are considered.

http://www.frsito.org.nz/assessors/resources/Practice_notes.html

Assessor Name	_____	Assessor No.	_____
Candidate Name	_____	NZQA No.	_____
Date of Assessment	_____	Final Result	_____

Level Descriptor

Level	Process	Employing	Responsibility
3	Carrying out processes that: <ul style="list-style-type: none"> Require a range of well developed skills Offer a significant choice of procedures Are employed within a range of familiar contexts 	Employing: <ul style="list-style-type: none"> Some relevant theoretical knowledge Interpretation of available information Discretion and judgement A range of known responses to familiar problems 	Applied: <ul style="list-style-type: none"> In directed activity with some autonomy Under general supervision and quality checking With significant responsibility for the quantity and quality of output With possible responsibility for the output of others

	Information or actions that may provide support for competency	
General	Has the candidate: <ul style="list-style-type: none"> <input type="checkbox"/> Satisfactorily completed a pre-course self-test? <input type="checkbox"/> Satisfactorily completed an oral or written on-course or post-course knowledge assessment? <input type="checkbox"/> Satisfactorily completed simulation exercises? <input type="checkbox"/> Attend a course covering the Unit Standard subject matter? <input type="checkbox"/> Provided proof of experience through records? <input type="checkbox"/> Practically demonstrated in a scenario or real fire? <input type="checkbox"/> Gained Unit 20388? <input type="checkbox"/> Other (please list)? <hr/> <hr/>	Assessor Notes:

Element and PC	Evidence Typical answer/product/performance expected from the learner/candidate(s)	Judgement Statement (A statement that defines the standard to be achieved)	Result C/NYC
1	Demonstrate knowledge of safe practices when loading aircraft with water, and water with additives. Range: <ul style="list-style-type: none"> <input type="checkbox"/> fixed wing <input type="checkbox"/> rotary wing 		
1.1	Explanation of requirements to provide a safe and efficient work area are explained for both fixed wing and helicopter operations. Range: <ul style="list-style-type: none"> <input type="checkbox"/> defined working zone <input type="checkbox"/> location of equipment and consumables <input type="checkbox"/> vehicle parking <input type="checkbox"/> security of loose articles Did the candidate: <ul style="list-style-type: none"> <input type="checkbox"/> Explain requirements to meet range statement or demonstrate knowledge during set-up? Assessor notes:	Explanation given or demonstrated.	

Element and PC	Evidence Typical answer/product/performance expected from the learner/candidate(s)	Judgement Statement (A statement that defines the standard to be achieved)	Result C/NYC
1.2	<p>Requirements for personal protective equipment for the filling operation are explained in accordance with the fire and rescue service provider's requirements.</p> <p>Range: factors -</p> <ul style="list-style-type: none"> <input type="checkbox"/> Water/cold protection <input type="checkbox"/> Head/eye/ear protection <input type="checkbox"/> Safety footwear <p>Consider the following:</p> <ul style="list-style-type: none"> • fixed wing and • helicopter operations is explained or demonstrated <p>Did the candidate:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Explain or demonstrate the requirements for PPE for filling operations? <p>Assessor notes:</p>	PPE requirements explained or demonstrated.	
1.3	<p>Methods of communication within crew during a filling operation for both fixed wing and helicopter operations are demonstrated or explained, e.g. hand signals, shoulder tap.</p> <p>Did the candidate:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Explain or demonstrate methods? <p>Assessor notes:</p>	Methods explained or demonstrated.	
1.4	<p>An explanation of the requirements for safe handling of retardant and suppressant concentrates is given. Includes PPE, immediate flushing with water when exposed to spills containment of spillages, environmental considerations.</p> <p>Did the candidate:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Explain requirements for safe handling? <p>Assessor notes:</p>	Requirements explained.	

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1.5	<p>Requirements of personal fitness and setting a work pace for operational safety are explained.</p> <p>Consider the following:</p> <p>Handling of heavy containers of additive, job rotation to manage fatigue and hypothermia, maintenance of alertness in hazardous operation, maintaining pace with aircraft in circuit.</p> <p>Did the candidate:</p> <p><input type="checkbox"/> Explain requirements for fitness and work pace?</p> <p>Assessor notes:</p>	Requirements explained.	

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2	<p>Select site and set up filling equipment.</p> <p>Range:</p> <p><input type="checkbox"/> fixed wing operations</p> <p><input type="checkbox"/> rotary wing operations</p>		
2.1	<p>Candidate is given a site for both helicopter and fixed wing operations.</p> <p>Range:</p> <p><input type="checkbox"/> water requirements</p> <p><input type="checkbox"/> aircraft requirements</p> <p><input type="checkbox"/> access</p> <p><input type="checkbox"/> operational safety</p> <p>Consider the following:</p> <p>Assessor will give the candidate the requirements of the tactical plan or simulation. Where site is only suitable for helicopters, candidate must explain the different requirements for a fixed wing site.</p> <p>Did the candidate:</p> <p><input type="checkbox"/> Select suitable site?</p> <p><input type="checkbox"/> Explain different requirements for fixed wing and helicopters?</p> <p><input type="checkbox"/> Provide for water supply suited to type of aircraft?</p> <p><input type="checkbox"/> Consider access requirements?</p> <p><input type="checkbox"/> Consider operational safety?</p> <p>Assessor notes:</p>	Site selected meets requirements of range statement.	

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2.2	<p>Candidate must select equipment for use with fixed wing and helicopters and use a crew to help set up the equipment for use.</p> <p>Did the candidate:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Select correct equipment for type of aircraft? <input type="checkbox"/> Set up equipment for use? <p>Assessor notes:</p>	Correct equipment selected and set up.	
2.3	<p>Using a crew to assist, candidate must arrange consumables and water additives in accordance with the incident action plan.</p> <p>Range:</p> <ul style="list-style-type: none"> <input type="checkbox"/> class A foam <input type="checkbox"/> fire retardants <input type="checkbox"/> other water additives <input type="checkbox"/> portable water supplies <input type="checkbox"/> pump fuel <p>Consider the following:</p> <p>Arrange the consumables on site in accordance with the tactical requirements of the incident action plan (or simulation).</p> <p>Simulated foam and retardant may be used (e.g. drums of water).</p> <p>Did the candidate:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Arrange consumables on site? <p>Assessor notes:</p>	Consumables arranged relevant to IAP or simulation.	

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3	Fill buckets or hoppers with water and additives to safe load levels. Range: <input type="checkbox"/> helicopter buckets or <input type="checkbox"/> fixed wing hoppers		
3.1	<p>Candidate takes a lead role as part of a filling crew to load water and additives into a fixed wing aircraft hopper <u>or</u> a heli-bucket at a real fire or in a simulation and must be done with operating aircraft or helicopters.</p> <p>Range:</p> <input type="checkbox"/> load requirements <input type="checkbox"/> additive requirements <input type="checkbox"/> safe practices <p>Consider the following: Aircraft must taxi into the filling site and be loaded while its engine is running and then crew should withdraw while aircraft taxi away.</p> <p>Helicopter must fly bucket in to filling site and hover while crew load bucket. Crew should withdraw and helicopter lift bucket and fly away from filling site.</p> <p>The load requirements determined by the pilot must be met, additives used in the correct amounts, and safe practices observed throughout.</p> <p>Did the candidate:</p> <input type="checkbox"/> Fill aircraft or heli-bucket? <input type="checkbox"/> Meet pilot load requirements? <input type="checkbox"/> Use additives in correct proportion? <input type="checkbox"/> Demonstrate safe practices throughout operation? <p>Assessor notes:</p>	Aircraft or heli-bucket filled safely and within requirements.	

Element and PC	Evidence Typical answer/product/performance expected from the learner/candidate(s)	Judgement Statement (A statement that defines the standard to be achieved)	Result C/NYC
3.2	<p>Candidate must establish communications between crew personnel and helipad/airstrip supervisor and maintain throughout the operation using hand signals and radio.</p> <p>Range:</p> <ul style="list-style-type: none"> <input type="checkbox"/> hand signals <input type="checkbox"/> radio communications <p>Did the candidate:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Establish a communications system? <input type="checkbox"/> Maintain the system throughout operations? <p>Assessor notes:</p>	Communications established and demonstrated throughout operation.	
3.3	<p>Candidate must explain requirements for adjustments of heli-bucket drop pattern.</p> <p>Consider the following:</p> <p>This may be done orally or explained and demonstrated while adjusting a heli-bucket.</p> <p>Did the candidate:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Explain requirements? <p>Assessor notes:</p>	Requirements explained.	
3.4	<p>Candidate must re-commission equipment after use with the help of a crew.</p> <p>Did the candidate:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Re-commission equipment? <p>Assessor notes:</p>	Equipment re-commissioned.	