



U.S. Department of Transportation  
Federal Aviation Administration  
Washington, DC

---

## Flight Standardization Board Report

---

Revision: 1  
Date: 11/03/2020

### Manufacturer Viking Air Limited

Type Certificate Data Sheet (TCDS)	TCDS Identifier	Marketing Name	Pilot Type Rating
A14EA	CL-215-6B11	CL-415	CL-415
A14EA	CL-215-6B11	CL-215T2	CL-415

**Approved by the Aircraft Evaluation Division**  
Federal Aviation Administration  
Transport Aircraft Long Beach Aircraft Evaluation Group  
3960 Paramount Boulevard, Suite 100  
Lakewood, CA 90712-4137

Office Telephone: (562) 627-5200  
Office Fax: (562) 627-5281  
Office Email: 9-AVS-AFS-100@faa.gov

## TABLE OF CONTENTS

Section	Page
1. RECORD OF REVISIONS.....	3
2. INTRODUCTION.....	3
3. HIGHLIGHTS OF CHANGE .....	3
4. BACKGROUND .....	3
5. ACRONYMS .....	4
6. DEFINITIONS .....	5
7. PILOT TYPE RATING.....	6
8. RELATED AIRCRAFT .....	7
9. PILOT TRAINING .....	7
10. PILOT CHECKING .....	8
11. PILOT CURRENCY .....	9
12. OPERATIONAL SUITABILITY .....	9
13. MISCELLANEOUS.....	9
APPENDIX 1. DIFFERENCES LEGEND.....	10
APPENDIX 2. MASTER DIFFERENCES REQUIREMENTS (MDR) TABLE .....	12
APPENDIX 3. DIFFERENCES TABLES.....	13

## 1. RECORD OF REVISIONS

Revision Number	Section(s)	Date
Original	All	10/07/1998
1	All	11/03/2020

## 2. INTRODUCTION

Aircraft Evaluation Groups (AEG) are responsible for working with aircraft manufacturers and modifiers, during the development and FAA certification of new and modified aircraft to determine:

- 1) The pilot type rating;
- 2) Flightcrew member training, checking, and currency requirements; and
- 3) Operational suitability.

This report lists those determinations for use by:

- 1) FAA employees who approve training programs;
- 2) FAA employees and designees who certify airmen; and
- 3) Aircraft operators and training providers, to assist them in developing their flightcrew member training, checking and currency.

## 3. HIGHLIGHTS OF CHANGE

The purpose of this revision is to add the CL-215T2 aircraft.

## 4. BACKGROUND

In February, 1998, Canadair requested that the FAA conduct an operational evaluation of the CL-415. The Long Beach AEG formed a Flight Standardization Board (FSB) that evaluated the CL-415 as defined in FAA Type Certificate Data Sheet (TCDS) No. A14EA. The evaluation was conducted during April and May 1998 using the methods described in FAA Advisory Circular (AC) 120-53, Crew Qualification and Pilot Type Rating Requirements for Transport Category Aircraft Operated Under FAR Part 121.

The FSB received a CL-415 initial pilot ground school utilizing the classroom training facilities of Bombardier Aerospace Training Center located in Montreal, Canada. The FSB then received aircraft training in the CL-415, Registration No. C-GKEV (Serial No. 2035). It then conducted AC 120-53 test T5, which was essentially an evaluation of all the FAA practical test standards (PTS) maneuvers that were required for a person not previously qualified in a seaplane.

The CL-415 is a high-wing, twin-engine amphibious airplane, which was certificated under Title 14 of the Code of Federal Regulations (14 CFR) part 21, § 21.29(a)(1)(ii). The CL-415's primary purpose is aerial firefighting. It has the capability of operating on land or water. On water, it can scoop 1,687 gallons (13,500 lbs) of water into 2 internal tanks that are

further subdivided into 2 sections (4 total). Each section has its own water door. The 4 water doors may then be selected in various configurations for the dropping of water onto fires. It can also be configured to spray liquids or drop chemical foam.

The FSB is responsible for conducting future evaluations of changes to the CL-415 (such as engines, system instrumentation, or similar new systems) and its derivatives. The FSB then determines how those changes impact training, checking and currency, and amends this report accordingly.

In April 2020, the FSB conducted a virtual online ground school to evaluate the differences via analysis associated with the variant CL-215T2 aircraft. It, as well as the associated Airplane Flight Manual (AFM) change, were found to be operationally suitable. Training and checking requirements are listed in Appendix 3, Differences Tables.

The CL-415 and CL-215T2 may be operated under 14 CFR parts 91 and 137. The 14 CFR part 61 § 61.58 proficiency check is required along with the knowledge and skills tests required by part 137, § 137.19(e).

For simplification, the CL-215-6B11 marketing names listed below are associated with the aircraft serial number and AFM Product Support Publication (PSP):

- CL-415 – aircraft serial numbers start with the number 2.
- CL-215T1 – aircraft serial numbers start with the number 1 and utilize AFM PSP 391.
- CL-215T2 – aircraft serial numbers start with the number 1 and utilize AFM PSP 391-1.

Provisions of this report are effective until amended, superseded, or withdrawn by subsequent FSB determinations.

## 5. ACRONYMS

- 14 CFR Title 14 of the Code of Federal Regulations
- AC Advisory Circular
- ACFT Aircraft
- ACS Airman Certification Standards
- ADF Automatic Direction Finder
- AEG Aircraft Evaluation Group
- AFM Airplane Flight Manual
- AHRS Attitude and Heading Reference System
- AOA Angle of Attack
- ATP Airline Transport Pilot
- AV Audiovisual Presentation
- CPT Cockpit Procedures Trainer
- CVR Cockpit Voice Recorder
- DME Distance Measuring Equipment
- FAA Federal Aviation Administration
- FDR Flight Data Recorder

- FFS Full Flight Simulator
- FSB Flight Standardization Board
- FSTD Flight Simulation Training Device
- FTD Flight Training Device
- HF High Frequency
- HO Handout
- ICBI Interactive Computer-Based Instruction
- KIAS Knots Indicated Airspeed
- LOC Localizer
- MDR Master Differences Requirements
- MFF Mixed Fleet Flying
- NAS National Airspace System
- PSP Product Support Publication
- PTS Practical Test Standards
- PTT Part Task Trainer
- SU Stand-Up Instruction
- TC Type Certificate
- TCBI Tutorial Computer-Based Instruction
- TCDS Type Certificate Data Sheet
- $V_{FE}$  Maximum Flap Extended Speed
- VHF Very High Frequency
- VOR Very High Frequency Omni-Directional Range
- $V_{S0}$  Stalling Speed or the Minimum Steady Flight Speed in the Landing Configuration

## 6. DEFINITIONS

These definitions are for the purposes of this report only.

- 6.1 Base Aircraft.** An aircraft identified for use as a reference to compare differences with another aircraft.
- 6.2 Current.** A crewmember meets all requirements to operate the aircraft under the applicable operating part.
- 6.3 Differences Tables.** Describe the differences between a pair of related aircraft, and the minimum levels operators must use to conduct differences training and checking of flightcrew members. Differences levels range from A to E.
- 6.4 Master Differences Requirements (MDR).** Specifies the minimum levels of training and checking required between a pair of related aircraft, derived from the highest level in the Differences Tables.
- 6.5 Mixed Fleet Flying (MFF).** The operation of a base aircraft and one or more related aircraft for which credit may be taken for training, checking, and currency events.

- 6.6 Operational Evaluation.** The AEG process to determine pilot type rating, minimum flightcrew member training, checking and currency requirements, and unique or special airman certification requirements (e.g., specific flight characteristics, no-flap landing).
- 6.7 Operational Suitability.** The AEG determination that an aircraft or system may be used in the National Airspace System (NAS) and meets the applicable operational regulations (e.g., 14 CFR parts 91, 121, 133, and 135).
- 6.8 Qualified.** A flightcrew member holds the appropriate airman certificate and ratings as required by the applicable operating part.
- 6.9 Related Aircraft.** Any two or more aircraft of the same make with either the same or different type certificates (TC) that have been demonstrated and determined by the Administrator to have commonality.
- 6.10 Seat-Dependent Tasks.** Maneuvers or procedures using controls that are accessible or operable from only one flightcrew member seat.
- 6.11 Special Emphasis Area.** A training requirement unique to the aircraft, based on a system, procedure, or maneuver, which requires additional highlighting during training. It may also require additional training time, specialized flight simulation training devices (FSTD) or training equipment.
- 6.12 Specific Flight Characteristics.** A maneuver or procedure with unique handling or performance characteristics that the FSB has determined must be checked.

## 7. PILOT TYPE RATING

### 7.1 Type Rating.

- 7.1.1 The pilot type rating for the CL-415 (a variant of the CL-215-6B11) is designated as “CL-415”.
- 7.1.2 The pilot type rating for the CL-215T (CL-215T2 marketing name only) (a variant of the CL-215-6B11) is designated as “CL-415”. The CL-215T2 aircraft was evaluated via analysis by the FSB and determined differences training are required.
- 7.1.3 The pilot type rating for the CL-215T (CL-215T1 marketing name) aircraft has never been evaluated by the FSB and no type rating determination has ever been made.

### 7.2 Common Type Ratings. Not applicable.

**7.3 Military Equivalent Designations.** Military aircraft that qualify for the CL-415 type rating can be found at [www.faa.gov](http://www.faa.gov) under “Licenses & Certificates,” “Airmen Certification,” “Online Services,” “Aircraft Type Rating Designators.” This webpage is kept up-to-date and can be found at [https://www.faa.gov/licenses\\_certificates/airmen\\_certification/](https://www.faa.gov/licenses_certificates/airmen_certification/).

## **8. RELATED AIRCRAFT**

**8.1 Related Aircraft on Same TCDS.** The CL-415 is related to the CL-215T (CL-215T2 marketing name only).

**8.2 Related Aircraft on Different TCDS.** Not applicable.

## **9. PILOT TRAINING**

**9.1 Airman Experience.** Airmen receiving CL-215T2 differences training are required to hold a CL-415 type rating.

### **9.2 Special Emphasis Areas.**

9.2.1 Pilots must receive special emphasis on aerial firefighting water systems during initial, transition, differences, upgrade, and/or recurrent ground training.

9.2.2 Pilots must receive special emphasis on, and perform the following areas during initial, transition, differences, upgrade, and/or recurrent flight training:

- a) Crosswind takeoffs and landings on both land and sea.
- b) Maneuvering in medium bank turns with full water load.
- c) Recovery from hull porpoising during water operations.
- d) Water probe operation. When water probes are extended for scooping, the aircraft experiences deceleration and a bow low trim angle change, requiring the pilot to increase elevator back pressure. When water probes are retracted at the completion of scooping the aircraft, the trim angle is restored and may be accentuated by the pilot-induced back pressure.
- e) Water dropping. When water is dropped from the aircraft at normal water-dropping speeds, the aircraft experiences an increased positive g-factor and pitches up significantly. At speeds close to the critical angle of attack (AOA), this tendency is minimized.
- f) FSB members determined that the CL-415/CL-215T2 may easily develop severe pilot-induced porpoising when water departures are attempted with the elevators selected to manual reversion. It is recommended that water departures only be executed with the elevator in the normal (hydraulically

boosted) mode. It is also recommended that pilot examiners conduct water maneuvering and takeoffs with all flight controls in the normal mode.

**9.3 Specific Flight Characteristics.** Maneuvers or procedures required to be checked as referenced in the Airline Transport Pilot (ATP) and Type Rating for Airplane Airman Certification Standards (ACS). There are no specific flight characteristics.

**9.4 Seat-Dependent Tasks.** Pilots must receive training in these seat-dependent tasks:

- a) Nosewheel steering (left seat); initial, transition, upgrade, and recurrent training.
- b) Radar Altimeter (left seat); initial, transition, upgrade, and recurrent training when installed.

**9.5 Regulatory Training Requirements Which Are Not Applicable to the CL-415.**  
None.

**9.6 FSTD.** There are no specific systems, procedures, or maneuvers that are unique to the CL-415/CL-215T2 that require a specific FSTD for training.

**9.7 Training Equipment.** There are no specific systems or procedures that are unique to the CL-415/CL-215T2 that require specific training equipment.

**9.8 Differences Training Between Related Aircraft.** Pilots must receive differences training between the CL-415 and CL-215T2. The level of training is specified in Appendix 3.

## 10. PILOT CHECKING

**10.1 Landing From a No-Flap or Nonstandard Flap Approach.** The probability of flap extension failure on the CL-415 and CL-215T2 is not extremely remote due to system design. Therefore, demonstration of a no-flap approach and landing during pilot certification or a § 61.58 proficiency check is required. Refer to Order 8900.1, Volume 5, Airman Certification, when the test or check is conducted in an aircraft versus a full flight simulator (FFS).

**10.2 Specific Flight Characteristics.** Maneuvers or procedures required to be checked as referenced in the ATP and Type Rating for Airplane ACS. There are no specific flight characteristics.

**10.3 Seat-Dependent Tasks.** Pilots must be checked in the seat-dependent task of nosewheel steering (left seat), initial, transition, upgrade, differences, and recurrent checking.

**10.4 Other Checking Items.**

- a) Proficiency in water scooping and aerial dropping, initial, transition, upgrade, differences, and recurrent checking.

b) Maneuvering in medium bank turns (with water tanks full), initial, transition, upgrade, differences, and recurrent checking.

**10.5 FSTD.** There are no specific systems, procedures, or maneuvers that are unique to the CL-415/CL-215T2 that require a specific FSTD for checking.

**10.6 Equipment.** There are no specific systems or procedures that are unique to the CL-415/CL-215T2 that require specific equipment.

**10.7 Differences Checking Between Related Aircraft.** Pilots must receive difference checking between the CL-415 and CL-215T2. The level of checking is specified in Appendix 3.

## **11. PILOT CURRENCY**

There are no additional currency requirements for the CL-415/CL-215T2 other than those already specified in parts 61, 91, and 137.

**11.1 Differences Currency Between Related Aircraft and MFF.** Pilots must receive differences currency between the CL-415 and CL-215T2 as follows: Water pickup and dropping every 90 days.

## **12. OPERATIONAL SUITABILITY**

The CL-415/CL-215T2 is operationally suitable for operations under parts 91 and 137.

## **13. MISCELLANEOUS**

**13.1 Forward Observer Seat.** No forward observer seat was evaluated.

**13.2 Landing Minima Categories.** Refer to 14 CFR part 97, § 97.3. The CL-415/CL-215T2 is a Category “A” aircraft during straight-in instrument approaches and a Category “A” for circling approaches.

**13.3 Normal Landing Flaps.** The CL-415/CL-215T2 normal “final flap setting” per § 91.126(c) is 25.

**NOTE:** The CL-415 AFM, dated June 24, 1994 states the maximum landing weight for land and water operations is 37,000 lb. Therefore, 1.3 times the stalling speed or the minimum steady flight speed in the landing configuration ( $V_{so}$ ) at final flap setting is 90 kts at maximum landing weight.

## APPENDIX 1. DIFFERENCES LEGEND

### Training Differences Legend

Differences Level	Type	Training Method Examples	Conditions
A	Self-Instruction	<ul style="list-style-type: none"> <li>• Operating manual revision (handout (HO))</li> <li>• Flightcrew operating bulletin (HO)</li> </ul>	<ul style="list-style-type: none"> <li>• Crew has already demonstrated understanding on base aircraft (e.g., updated version of engine).</li> <li>• Minor or no procedural changes required.</li> <li>• No safety impact if information is not reviewed or is forgotten (e.g., different engine vibration damping mount).</li> <li>• Once called to attention of crew, the difference is self-evident.</li> </ul>
B	Aided Instruction	<ul style="list-style-type: none"> <li>• Audiovisual presentation (AV)</li> <li>• Tutorial computer-based instruction (TCBI)</li> <li>• Stand-up instruction (SU)</li> </ul>	<ul style="list-style-type: none"> <li>• Systems are functionally similar.</li> <li>• Crew understanding required.</li> <li>• Issues need emphasis.</li> <li>• Standard methods of presentation required.</li> </ul>
C	Systems Devices	<ul style="list-style-type: none"> <li>• Interactive (full-task) computer-based instruction (ICBI)</li> <li>• Cockpit Procedures Trainers (CPT)</li> <li>• Part task trainers (PTT)</li> <li>• Level 4 or 5 flight training device (FTD 4-5)</li> </ul>	<ul style="list-style-type: none"> <li>• Training can only be accomplished through systems training devices.</li> <li>• Training objectives focus on mastering individual systems, procedures, or tasks versus highly integrated flight operations or “real-time” operations.</li> <li>• Training devices are required to assure attainment or retention of crew skills to accomplish more complex tasks usually related to aircraft systems.</li> </ul>
D	Maneuvers Devices	<ul style="list-style-type: none"> <li>• Level 6 or 7 flight training device (FTD 6-7)</li> <li>• Level A or B full flight simulator (FFS A-B)</li> </ul>	<ul style="list-style-type: none"> <li>• Training can only be accomplished in flight maneuver devices in a real-time environment.</li> <li>• Training requires mastery of interrelated skills versus individual skills.</li> <li>• Motion, visual, control-loading, and specific environmental conditions may be required.</li> </ul>
E	Level C/D FFS or Aircraft	<ul style="list-style-type: none"> <li>• Level C or D full flight simulator (FFS C-D)</li> <li>• Aircraft (ACFT)</li> </ul>	<ul style="list-style-type: none"> <li>• Motion, visual, control-loading, audio, and specific environmental conditions are required.</li> <li>• Significant full-task differences that require a high fidelity environment.</li> <li>• Usually correlates with significant differences in handling qualities.</li> </ul>

### Checking Differences Legend

Differences Level	Checking Method Examples	Conditions
A	None	None
B	<ul style="list-style-type: none"> <li>• Oral or written exam</li> <li>• Tutorial computer-based instruction (TCBI) self-test</li> </ul>	Individual systems or related groups of systems.
C	<ul style="list-style-type: none"> <li>• Interactive (full-task) computer-based instruction (ICBI)</li> <li>• Cockpit Procedures Trainers (CPT)</li> <li>• Part task trainers (PTT)</li> <li>• Level 4 or 5 flight training device (FTD 4-5)</li> </ul>	<ul style="list-style-type: none"> <li>• Checking can only be accomplished using systems devices.</li> <li>• Checking objectives focus on mastering individual systems, procedures, or tasks.</li> </ul>
D	<ul style="list-style-type: none"> <li>• Level 6 or 7 flight training device (FTD 6-7)</li> <li>• Level A or B full flight simulator (FFS A-B)</li> </ul>	<ul style="list-style-type: none"> <li>• Checking can only be accomplished in flight maneuver devices in a real-time environment.</li> <li>• Checking requires mastery of interrelated skills versus individual skills.</li> <li>• Motion, visual, control-loading, and specific environmental conditions may be required.</li> </ul>
E	<ul style="list-style-type: none"> <li>• Level C or D full flight simulator (FFS C-D)</li> <li>• Aircraft (ACFT)</li> </ul>	Significant full-task differences that require a high fidelity environment.

## APPENDIX 2. MASTER DIFFERENCES REQUIREMENTS (MDR) TABLE

These are the minimum levels of training and checking required, derived from the highest level in the Differences Tables in Appendix 3. Differences levels are arranged as training/checking.

<b>Related Aircraft ↓</b>	<b>Base Aircraft →</b>	<b>CL-415</b>	<b>CL-215T2</b>
CL-415		Not applicable	Not evaluated
CL-215T2		B/B	Not applicable

### APPENDIX 3. DIFFERENCES TABLES

This Design Differences Table, from the CL-415 to the CL-215T2, was proposed by Viking Air Limited and validated by the FSB on April 27, 2020 via analysis. It lists the minimum differences levels operators must use to conduct differences training and checking of flightcrew members.

FROM BASE AIRCRAFT: CL-415  TO RELATED AIRCRAFT: CL-215T2	DESIGN	REMARKS	FLT CHAR	PROC CHNG	TRAINING	CHECKING
	Limitations	Some limitations are different to reflect landing gear changes and lower water-carrying capabilities. Differing limitations are covered throughout systems.	No	No	A	B
	Capacities	All except water tank capacity unchanged. Water tank capacity - CL-215T2 = 12,000 lb CL-415 = 13,500 lb.	No	No	A	A
	Structures	CL-215T2 = 2 water doors. CL-415 = 4 water doors.	No	Yes	B	A
	Flight Deck	Collins Navigation and Communication System instead of Honeywell Primus II System.	No	Yes	B	B

FROM BASE AIRCRAFT: CL-415  TO RELATED AIRCRAFT: CL-215T2	DESIGN	REMARKS	FLT CHAR	PROC CHNG	TRAINING	CHECKING
	11 Placards and Markings	Placards updated to CL-215-6B11 (CL-215T2 Variant) from CL-215T-6B11 (CL-415 Variant).	No	No	A	A
	21 Air Conditioning	No Avionics Cooling System.	No	No	A	A
	21 Air Conditioning	No Ram Air for Air Conditioning.	No	No	A	A
	22 Autoflight	No Rudder Trim Compensator Unit.	No	No	A	B
	23 Communications	Honeywell Primus II System replaced with Collins very high frequency (VHF)-22A. Control head is moved from the center pedestal to center overhead.	No	Yes	B	A
	23 Communication	Honeywell Primus II System replaced with Collins 346B-3 Audio Integrating System. Panel relocated from pilot side console to pilot overhead.	No	Yes	B	A
	23 Communications	Honeywell Primus II System replaced with Collins TDR-90 Transponder. Control head relocated from center pedestal to center overhead.	No	Yes	B	A

FROM BASE AIRCRAFT: CL-415  TO RELATED AIRCRAFT: CL-215T2	DESIGN	REMARKS	FLT CHAR	PROC CHNG	TRAINING	CHECKING
	23 Communications	VHF FM Wulfberg Flexcomm replaced with Wulfberg 5000. Control head relocated from co-pilot side console to center pedestal.	No	Yes	B	A
	23 Communications	High frequency (HF) Sunair ASB-500 HF replaced with Collins HF-230. Control Head is in the same general location.	No	No	A	A
	24 Electrical Power	Circuit Breaker panels are no longer behind the pilot and co-pilot. They have been relabeled and there are 3 circuit breaker panels located on the pilot side console and 1 circuit breaker panel located on the co-pilot side console. There is also 1 circuit breaker panel that has been relabeled, but is in the same location on the Main Distribution Center.	No	No	A	A
	26 Fire Protection	Fire System Test Panel no longer tests the squibs and the Tail Pipe Overheat. Panel relocated from the co-pilot side console to the center instrument panel.	No	No	A	A
	26 Fire Protection	Tail Pipe Overheat is tested through the Tail Pipe Overheat switch/light. Switch/light is in the same location.	No	No	A	A

<b>FROM BASE AIRCRAFT: CL-415</b>  <b>TO RELATED AIRCRAFT: CL-215T2</b>	<b>DESIGN</b>	<b>REMARKS</b>	<b>FLT CHAR</b>	<b>PROC CHNG</b>	<b>TRAINING</b>	<b>CHECKING</b>
	26 Fire Protection	Tail Pipe Fail is tested through the Tail Pipe Fail switch/light. Switch/light is the same in location.	No	Yes	B	A
	27 Flight Controls	No Auto Reversion for the Aileron System.	No	No	A	A
	27 Flight Controls	No Trim Comparator Unit.	No	No	A	A
	27 Flight Controls	No Gust Lock Indication panel.	No	No	A	A
	27 Flight Controls	Normal trim for the CL-215T2 is not disabled when the gust lock engaged.	No	No	A	A
	27 Flight Controls	Out of Trim indication is different for the Aileron and Rudder.	No	No	A	A
	27 Flight Controls	No AOA System.	No	No	A	A
	27 Flight Controls	Maximum flap extended speed ( $V_{FE}$ ) flaps 25 reduced to 114 knots indicated airspeed (KIAS). Flaps are “hydraulically locked” at positions 0, 10, and 15. They are “hydraulically pressurized” at 25°.	No	No	A	A

FROM BASE AIRCRAFT: CL-415  TO RELATED AIRCRAFT: CL-215T2	DESIGN	REMARKS	FLT CHAR	PROC CHNG	TRAINING	CHECKING
	29 Hydraulic Power	Emergency Gear Down Switch utilizes the Auxiliary/Emergency. Pump which is 2650 psi in CL-215T2. Emergency extension time for extending the landing gear is now 35 sec.	No	No	A	B
	29 Hydraulic Power	Auxiliary electrical pump run time is limited to 15 min. of continuous running.	No	Yes	B	B
	30 Ice and Rain Protection	No Air Data Ice Protection Panel. Heat only available for Pitot and Stall Warning. Controls for heat are located in the same general area. An integrally lighted loadmeter indicates relative current draw, from 0% to 100% when the appropriate PITOT HEAT or STALL VANE HEAT switch is held to the READ position.	No	Yes	B	A
	30 Ice and Rain Protection	No momentary wiper switch on the control wheel.	No	No	A	A
	31 Indicating/Recording Systems	No cockpit voice recorder (CVR).	No	No	A	A
	31 Indicating/Recording Systems	No flight data recorder (FDR).	No	No	A	A

FROM BASE AIRCRAFT: CL-415  TO RELATED AIRCRAFT: CL-215T2	DESIGN	REMARKS	FLT CHAR	PROC CHNG	TRAINING	CHECKING
	32 Landing Gear	Landing gear weight limitation is lower. This results in the limitation changes to Ramp, Takeoff and Landing weights for both Land and Water Operations.	No	Yes	B	A
	32 Landing Gear	Nosewheel Steering indication slightly different. Pilots need to be aware that the Nosewheel Steering ready Push Button Annunciator will only illuminate once it has been selected and Weight on Wheels has been achieved.	No	Yes	B	A
	33 Lights	Instrument Panel lighting is similar, Small differences in Integral lighting due to the different instruments being used.	No	No	A	A
	33 Lights	No empennage service light.	No	No	A	A
	33 Lights	No 40 sec. timer for the landing lights.	No	No	A	A
	34 Navigation	Honeywell Primus II System replaced with Collins VIR-32 which provides navigation for very high frequency omni-directional range (VOR)/Localizer (LOC) Glideslope and marker beacon. Control Panel for the Navigation unit has been relocated from the center pedestal to the center overhead.	No	Yes	B	A
	34 Navigation	No distance measuring equipment (DME) capability.	No	No	A	A

FROM BASE AIRCRAFT: CL-415  TO RELATED AIRCRAFT: CL-215T2	DESIGN	REMARKS	FLT CHAR	PROC CHNG	TRAINING	CHECKING
	34 Navigation	Honeywell Primus II System replaced with Collins Automatic Direction Finder (ADF)-60. Control head has been relocated from the center pedestal to the pilot and co-pilot overhead.	No	Yes	B	A
	34 Navigation	Honeywell Attitude and Heading Reference System (AHRS) replaced with standalone Artificial Horizon instrument. Instrument's location has not changed.	No	Yes	B	A
	34 Navigation	Honeywell AHRS replaced with Sperry C-14 instrument. Instrument's location has not changed.	No	Yes	B	A
	34 Navigation	Turn and Slip indication displays rate-of-turn and slip indication.	No	Yes	B	A
	34 Navigation	No Radio Altimeter System.	No	No	A	A
	42 Aerial Firefighting	Water delivery system has similarities however operation and indication is different	No	Yes	B	B
	42 Aerial Firefighting	No Master Caution if the Armed switch is left in the armed position and probe down is selected.	No	Yes	B	A

<b>FROM BASE AIRCRAFT: CL-415</b>  <b>TO RELATED AIRCRAFT: CL-215T2</b>	<b>DESIGN</b>	<b>REMARKS</b>	<b>FLT CHAR</b>	<b>PROC CHNG</b>	<b>TRAINING</b>	<b>CHECKING</b>
	42 Aerial Firefighting	Smaller water tanks results in change in limitation. Total water quantity is 12,000 lbs instead of 13,500 lbs. Max lift-off weight after water pickup goes from 47,000 lbs to 45,250 lbs.	No	No	A	A
	42 Aerial Firefighting	CL-215T2 = 2 water doors. CL-415 = 4 water doors.	No	No	A	A
	42 Aerial Firefighting	Water door controls are different and they have been relocated from the glare shield to the center pedestal.	No	Yes	B	A
	42 Aerial Firefighting	The CL-215T2 does not have a water drop control or status panel for digital computations and must be calculated manually.	No	Yes	B	A

FROM BASE AIRCRAFT: CL-415  TO RELATED AIRCRAFT: CL-215T2	DESIGN	REMARKS	FLT CHAR	PROC CHNG	TRAINING	CHECKING
	42 Aerial Firefighting	Indications are in the same location in front of each pilot however, operation is different. Operational phases of water scooping/dropping displays 10 annunciators located on the instrument shroud. Two identical annunciator panels – each 10 annunciators indicates the status of the water doors, water door closing jacks and water probes.	No	Yes	B	A
	42 Aerial Firefighting	Ready light on the CL-415 indicates the system is ready for operation and all proximity switches report proper condition. On the CL-215T2 both the door lock and jack ready indication must be illuminated to represent the same condition.	No	Yes	B	A
	42 Aerial Firefighting	The Mode switch on the CL-215T2 is a two-position switch. It is possible to remove both electrical power and hydraulic to the system.	No	Yes	B	A
	42 Aerial Firefighting	An arming switch is located in the center of the instrument panel shroud to prevent inadvertent opening of the water doors. The arming switch interrupts the power to the water drop buttons.	No	Yes	B	A

<b>FROM BASE AIRCRAFT: CL-415</b>  <b>TO RELATED AIRCRAFT: CL-215T2</b>	<b>DESIGN</b>	<b>REMARKS</b>	<b>FLT CHAR</b>	<b>PROC CHNG</b>	<b>TRAINING</b>	<b>CHECKING</b>
	42 Aerial Firefighting	Foam system operation is similar, but control panel has been relocated from the co-pilot side console to the center pedestal.	No	Yes	B	A
	42 Aerial Firefighting	Bilged system is different.	No	Yes	B	A
	72 Engine	No Oil Replenishment System.	No	No	A	A
	72 Engine	No Engine Monitoring Panel.	No	No	A	A

This Maneuver Differences Table, from the CL-415 to the CL-215T2, was proposed by Viking Air Limited and validated by the FSB on April 27, 2020 via analysis. It lists the minimum differences levels operators must use to conduct differences training and checking of flightcrew members.

<b>FROM BASE AIRCRAFT: CL- 415</b>	<b>MANEUVER</b>	<b>REMARKS</b>	<b>FLT CHAR</b>	<b>PROC CHNG</b>	<b>TRAINING</b>	<b>CHECKING</b>
<b>TO RELATED AIRCRAFT: CL-215T2</b>	AFM	Some limitations changed to reflect lower Landing Gear capacity and lower water-carrying capability.	No	No	A	A
	Shutdown	Rudder Trim Compensator.	No	Yes	A	A
	Normal Procedures	V <sub>FE</sub> Flaps 25 reduced to 114 KIAS. Flaps are “hydraulically locked” at positions 0, 10, and 15. They are “hydraulically pressurized” at 25°.	No	Yes	A	A
	Abnormal Procedures	Changes related to Rudder Trim Compensator.	No	Yes	B	B
	Aerial Firefighting	Water door controls.	No	Yes	B	A