

APPENDIX 2

Santiago, March 25, 2020.

COMMENTS ON THE OBSERVATIONS AND COMMENTS OF THE CCM ARTICLE 4 ANALYSIS GROUP ON THE EXTENSION REQUEST SUBMITTED BY CHILE IN ACCORDANCE WITH ARTICLE 4.5 OF THE CONVENTION

I. Background of the areas to be cleared.

1. In Chile, cluster munitions were used only in military training activities, not as the result of a war. The land that could be contaminated with these munitions is identified and corresponds to military ranges, of prohibited access for unauthorized civil and military personnel. These areas are used for specific military training activities, specifically as conventional weapons shooting ranges.
2. In accordance with IMAS 08.10, during the year 2019 and in order to confirm the evidence of hazards, identify the type and dimension of the hazard within the hazardous area and define, as much as possible, the perimeter of the areas suspected of contamination with remains of Cluster munitions, Non-Technical Surveys were carried out in which, through interviews, compilation and analysis of new antecedents and / or existing information, in addition to visual inspection of the terrain, allowed 96,883,600 m² of the initial total surface area of these areas , 32,272,476 m² will be reduced, leaving 64,611,124 m² suspected of being contaminated with cluster munitions.
3. For the calculation of the contaminated surface, with the maximum precision possible, in the Non-Technical Studies, the equipment and software of the MARS system (Mine Action Reports System) were used, allowing the collection of georeferenced information from each Suspected Hazardous Area (SHA) contaminated with cluster munition remnants, integrating this data into the IMSMA (Information Management System for Mine Action).
4. The suspected areas (firing ranges) to clear, contaminated with cluster munition remnants, are as follows:

Name	Region	Institution Responsible	Surface m ²
Pampa Chaca Este	Arica y Parinacota	Chilean Army	30.560.000
Delta	Tarapacá	Chilean Air Force	28.291.563
Barrancas	Tarapacá	Chilean Air Force	2.669.542
Pta. Zenteno	Magallanes y Antártica Chilena	Chilean Air Force	3.090.019
			64.611.124

5. The characteristics of the state, shape and consistency of the terrain, as well as the prevailing climatic factors, access roads and medical evacuation capacity, are detailed in each of the Non-Technical Surveys of the firing ranges to be cleared, antecedents that have been considered in the present planning of the cleaning and destruction operations of cluster munition remnants.

6. In the procedures to carry out the operations of cleaning and destruction of cluster munition remnants, the provisions of IMAS 07.11 Land Release, IMAS 08.10 Non-Technical Surveys, IMAS 08.20 Technical Surveys, IMAS 09.30 Explosive Ordnance Disposal – (EOD), will be considered. in addition to the institutional regulations of the Chilean Army; Humanitarian Demining Manual MDO-90402 and EOD Procedures Manual MDO-40402.

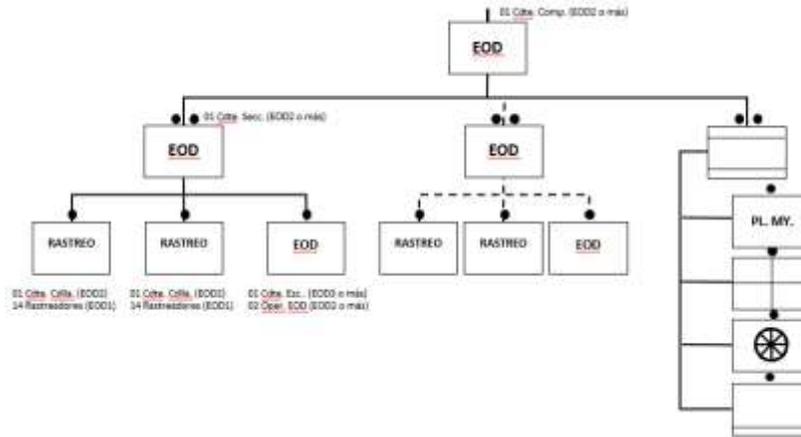
II. Planning Objectives.

1. Specify the identification and ensure the cleaning and destruction of the remains of cluster munitions located in the military training ranges, where this type of ammunition was used, considering carrying out the process of quality assurance and certification of this areas.
2. The Convention on Cluster Munition is a commitment made at the national level, therefore, the cleaning and destruction of cluster munition remnants must be confronted with the Armed Forces Institutions, using existing capacities in terms of EOD specialist personnel and equipment. of personal protection, detection equipment, tools for clearance, vehicles, machinery and support equipment owned by the State of Chile.
3. The Army and Navy Demining Units have adequate training and equipment to carry out the cleaning and destruction of cluster munition remnants; likewise, personnel from the Chilean Air Force have been trained, thereby allowing the creation of an EOD Unit in this Institution.

Equipment:



4. The minimum organization of a Cleaning Unit for areas contaminated with cluster munition remnants must have at least 7 tracking teams, in addition to an EOD team comprised of at least 2 EOD operators. The Cleaning Unit shall also have in the area of operations, the material and personnel for health support, logistical and administrative personnel, and means of transportation that allow the development and continuity of operations.



EOD Section Commander.

- Exercise team instruction.
- Exercises equipment operation.
- Appoint Crew Commanders (Greater Experience).
- Responsible for preparing technical reports and regulatory documentation to the Commander of the EOD Company.
- Responsible in the destruction area according to planning.

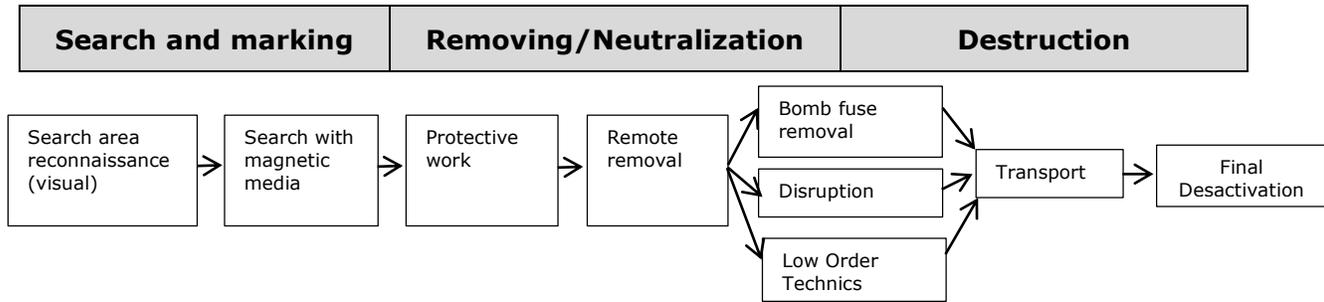
EOD Squad Commander.

- Responsible for the technical execution.
- All actions in the area of operation will only obey the guidelines of the EOD Section Commander.
- Responsible for the tactical control of the items that will be used in his crew.

III. Projection of clearance operations Convention on Cluster Munitions, Art. 4.

1. The work planning foreseen to face the pending challenge to implement Article 4, is formulated on the basis of the trained personnel and the existing means to date, for which, the National Defense Institutions will arrange the preparation and enlistment of the human and technical means to carry out the cleaning and destruction of cluster munition remnants.
2. The anticipated working deadlines are calculated on the performance of a manual unit, considering work periods, rest periods, camping transfers and technical studies. In addition to the above, the experience obtained in clearance processes of explosive device remains, carried out by personnel from the School of Engineers, in a shooting range of the Chilean Army, which had a low level of contamination, was considered. The technical work carried out in this area showed an advance per day of one hectare per tracking pair.
3. The cleaning operations of areas contaminated with cluster munition remnants will be carried out through visual inspection, detection, clearance, signaling, neutralization and / or destruction, all of the above must be considered based on the physical state of the ammunition found. These technical works are scheduled to be carried out by specialized units of the Armed Forces (Army, Navy and Air Force).

4. The stages of operations will be as follows:



a. Search and marking.

- The first approach will be made by executing a batch reconnaissance (minimum visual reconnaissance).
- The approach must be made by the team leader and his crew commanders.
- After the first approach, the team leader hands over the batch responsibility to his crew commanders.
- The search will be carried out with magnetic equipment in 25x25 m drawers and, once an Explosive Ordnance (EO) has been found, it will be marked with red flags.
- The EO can be found on the surface or buried, for which in the case that an EO is detected underground with the magnetic means, a search will be carried out by excavation.
- This search must be supported by mechanical means (skid steer loader or backhoe).
- Coordination must be close between the EOD operator and the machinery operator, keeping in mind that it should not dig deeper than the depth range of the detector.

b. Removal / Neutralization.

- Under cover.
- The pulleys, never towards us. (if possible)
- Ammunition will be moved as necessary.
- There will be a waiting time after removal.
- Observation of results at a distance.
- At a safe distance.

Munition	Danger Radio	Exclusion Distance
Hand Grenades / Submunitions	75 Meters	150 Meters
Anti Personnel Mines	75 Meters	150 Meters
Mines other than anti-personnel mines (MOTAPM)	100 Meters	300 Meters
Projectile 40-100 mm	150 Meters	350 Meters
Projectile 100-200 mm	300 Meters	700 Meters
Projectile + 200 mm	400 Meters	1000 Meters
Aviation Bombs	700 Meters	1500 Meters

These distances must be confirmed for the type of munition to be destroyed.

c. Destruction.

- Destruction In Situ.



- Bomb fuse removal.



- "Low Order"



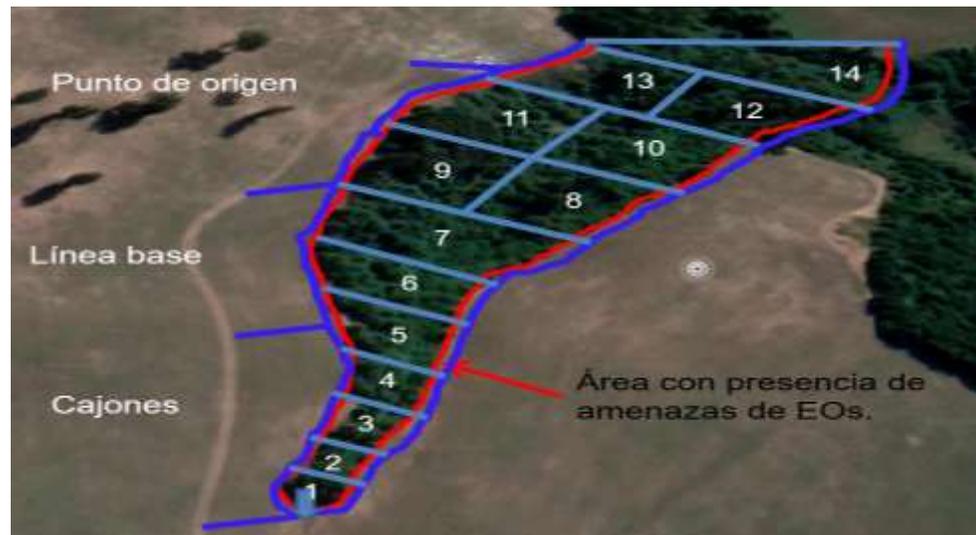
5. Forecast Operations Cleaning of Cluster Munition Remnants.

Ranges to clear	Responsible	Months
"Pampa Chaca Este"	UDH Arica (Army)	51
"Delta"	UDH Calama (Army)	49
"Barrancas"	UDH FACH (Air Force)	7
"Punta Zenteno"	UDH POMTA (Navy)	8

6. It should be borne in mind that this projection may vary, depending both on the additional means that may be assigned or a possible reorganization of these, as well as on new difficulties or unforeseen events that may affect the advance of cleared areas.
7. The operations of cleaning and destruction of cluster munitions remnants are within the functions that the Armed Forces are required to carry out; likewise, activities on risk reduction education for these explosive devices are carried out in coordination with other State agencies.
8. For the execution of the operations of cleaning and destruction of cluster munitions remnants, there will be operational, administrative and logistical support, which will be granted fundamentally by the Institutions of the Armed Forces, for which the Army, the Navy and the Air Force of Chile have the following Humanitarian Demining Units (UDH):
 - a. Demining Unit "Arica", belonging to the Motorized Brigade No. 4 "Rancagua", dependent on the VI Army Division, with area of responsibility, the "Pampa Chaca Este" training camp, in the Arica and Parinacota Region.
 - b. Demining Unit "Calama", belonging to the Motorized Brigade No. 1 "Calama", dependent on the 1st Army Division, with area of responsibility, the "Delta" training camp, in the Antofagasta Region.
 - c. Demining Unit of the Chilean Air Force (UDH FACH), dependent on the First Air Brigade of the Chilean Air Force, in the city of Iquique, having as its area of responsibility, the training camp "Barrancas", in the Antofagasta region.
 - d. Part of Operations of Land Mines of the Navy (POMTA), belonging to the Marine Infantry Detachment No. 4 "Cochrane", dependent on the III Naval Zone, with area of responsibility in the training camp "Punta Zenteno", in the Magallanes and Chilean Antarctic Region.

9. Training Center for Demining and Destruction of Explosives (CEDDEX), belonging to the School of Military Engineers, dependent on the Army Schools Division. It is the body in charge of planning, scheduling, directing, and training personnel of Officers and NCOs of the Army and other branches of the Armed Forces, to perform activities in humanitarian demining and destruction of cluster munition remains, in addition, on behalf of the National Mine Action Authority, it will carry out the activities corresponding to the process of "Certification of Cleared Areas" of cluster munition remnants.
10. Likewise, once the Technical Studies are started in each of the areas, their analysis and study will allow obtaining the greatest possible clarity, regarding where there is a reasonable suspicion of contamination by cluster munition remnants; allowing through a systematic process, based on direct evidence, to confirm the presence and magnitude of the contamination of cluster munition remnants, as well as other explosive devices, taking into account that these areas correspond to firing ranges of different weapons, which once started the operations, will be in recess for their training activities.

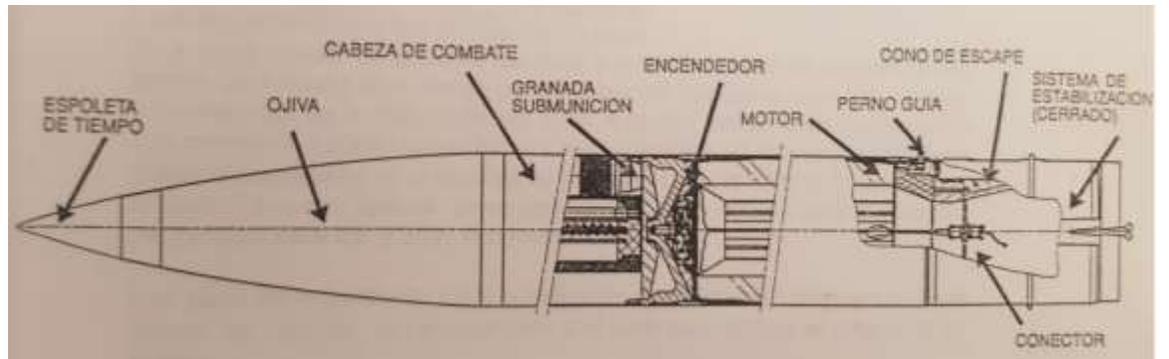
Organization of the Zone.



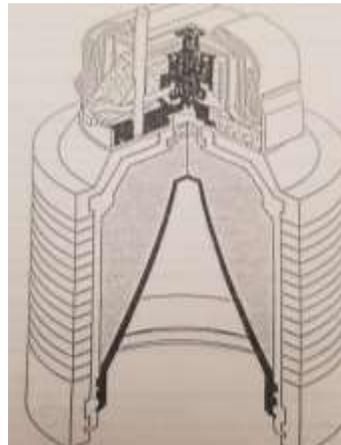
11. The estimated amount of cluster munition remnants was calculated based on what was reported at the time by the Army and Air Force. It corresponds to the total of the ammunition used with the total of their submunitions. As many Cluster Munitions did indeed explode, the munition that could be unexploded is considerably less.
12. In addition to the above, internal regulations consider that each time explosive devices are used on military sites, it is appropriate that the site of impact be reviewed by explosive ordnance disposal (EOD) crews, who detonate the items found without exploding. Given the time since the last Cluster Munitions was used, the EOD teams have been destroying every unexploded item found.
13. Notwithstanding the foregoing, CERTIFICATION is required, according to IMAS standards. Consequently, the quantity and type of cluster munition used for training activities is identified for each of the firing ranges and has been reported to the Convention on Cluster Munitions, through Report Article 7 of Transparency Measures and considers the next:

Ranges to be clear	Cluster Munition Type	Estimated Quantity
"Pampa Chaca Este"	Rockets MK-II LAR 160	608 rockets were launched, the amount of remnants is unknown.
"Delta"	Bombs CB-250K	4 bombs were launched, the amount of remnants is unknown.
"Barrancas"	Bombs CB-250K	16 bombs were launched, the amount of remnants is unknown.
"Punta Zenteno"	Bombs CB-250K	20 bombs were launched, the amount of remnants is unknown.

MK II LAR 160 Rocket



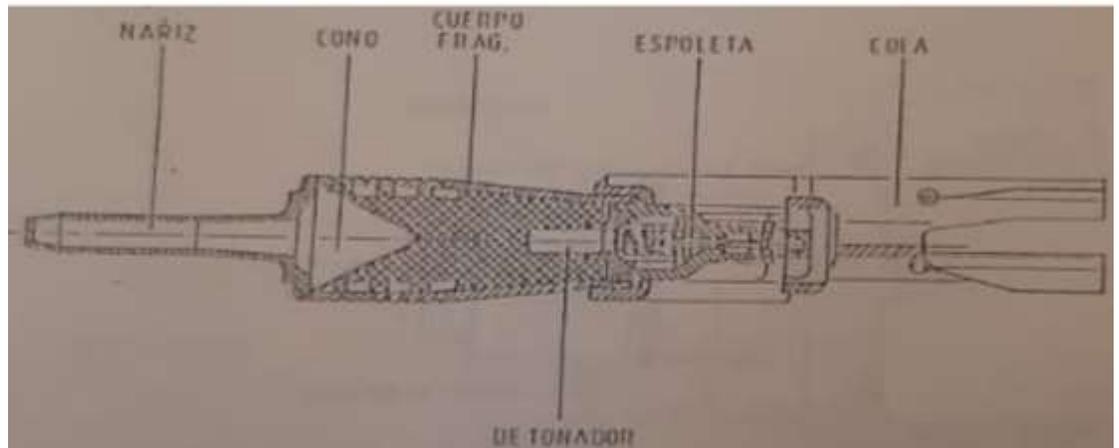
Sub munition CL -3022-S4



CB-250K Bomb



Sub munition



14. With the Technical Studies results, the working days will be established, according to the particular situation of each contaminated area and considering the daily meteorological situation for each particular area, giving priority to the safety of personnel.

15. Cleaning operations in areas contaminated with cluster munition remnants will be carried out in accordance with the following provision.:

Range	2021	2022	2023	2024	2025	2026
Pampa de Chaca Este	[Redacted]					
Delta	[Redacted]					
Barrancas	[Redacted]					
Punta Zenteno	[Redacted]	[Redacted]				

16. In the Magallanes and Chilean Antarctic Region, in the southern part of the country ("Punta Zenteno"); where, although the work will be carried out at sea level, the conditions of temperature, humidity and winds in the winter period affect the normal development of operations, which is why the recess of operations is expected in that period of the year (May to August).

IV. Financial and logistical projection to develop clearance operations under Article 4 of the Cluster Munitions Convention.

- It is foreseen to have the financial resources to maintain and sustain over time the operations to be carried out by the cluster munition remnants cleaning units. In addition, the need for training of personnel for relays, renewal of personal protective equipment, support equipment, facilities, vehicles and support equipment, as well as the eventual integration of new technologies that allow optimizing the use of available means, have been considered.
- Forecast of resources to be assigned annually by the Ministry of Finance:

a. Budget in national currency (Chilean peso):

	2021	2022	2023	2024	2025	2026
SECNAD	\$ 244.159.476	\$ 748.149.693	\$ 753.849.693	\$ 269.093.893	\$ 269.093.893	\$ 269.093.893
EOD ARICA (Army)	\$ 161.732.288	\$ 181.732.288	\$ 181.732.288	\$ 181.732.288	\$ 181.732.288	\$ 106.416.144
EOD IQUIQUE (Army)		\$ 181.732.288	\$ 181.732.288	\$ 181.732.288	\$ 181.732.288	\$ 96.116.144
EOD FACH		\$ 100.116.144				
EOD Navy		\$ 100.116.144				
CEDDEX	\$ 69.823.214	\$ 55.840.874	\$ 55.840.874	\$ 20.220.419	\$ 55.840.874	\$ 20.220.419
EMCO	\$ 510.617.965	\$ 749.888.269	\$ 596.532.469	\$ 596.532.469	\$ 596.532.469	\$ 596.532.469
Total in pesos:	\$ 986.332.943	\$ 2.117.575.700	\$ 1.769.687.612	\$ 1.249.311.357	\$ 1.284.931.812	\$ 1.088.379.069

b. Budget in foreign currency, United States Dollar (US \$)::

	2021	2022	2023	2024	2025	2026
SECNAD	\$ 225.574	\$ 45.574	\$ 255.574	\$ 45.574	\$ 45.574	\$ 45.574

- The Republic of Chile has made clear its permanent commitment to complying with obligations arising from international disarmament agreements. Regarding the Cluster Munitions Convention, it will apply reasonable efforts to identify, define, and eliminate all presence and suspicion of cluster munition remnants, as well as other

