 Input paper: [[1]](#footnote-1) VTS39-9.2.7

Input paper for the following Committee(s): check as appropriate Purpose of paper:

**□** ARM **□** ENG **□** PAP **□** Input

**□** ENAV **□** VTS **□** Information

Agenda item [[2]](#footnote-2) 9

Technical Domain / Task Number 2 9.2

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IALA Recommendation V-128, Ed. 4 approval

# Summary

Global Control Systems Corporation does not support to approve IALA Recommendation V-128, Ed. 4 because it is too difficult to understand for our customer.

## Suggestion

Since the new version has too detailed information, we would like to suggest to summarize them with more general terms and remove too detailed parts.

# Korean situation

In Korea IALA V-128 is regarded as VTS equipment’s performance standards and when a VTS bid is open, it is mandate that proposed system fulfil the specifications in the document, and, of course, system that satisfies the “Advanced” level gets more score even for the port with only 50 ships per day. It is natural for customers that they wish to have “Best” equipment, but in many cases these unnecessarily expensive system are installed for site where only basic level can do the job. This is waste of money and only benefits certain company that makes luxuries system and sell them with very high price.

# References

Following references are some of the “Basic, Standard, Advanced” tables and from our experience customer always wants to have advanced one. And there is no doubt the bid evaluators naturally give higher score to the “advanced” system which lead to higher cost.

1. Targets to be Detected

| **IALA Target Type** | **Typically Representing** | **Capability** | | |
| --- | --- | --- | --- | --- |
| **Basic** | **Standard** | **Advanced** |
| 1 | Aids to Navigation without radar reflector. Small open boats, fibreglass, wood or rubber with outboard motor and, at least, 4 metres long. Small speedboats, small fishing vessels, small sailing boats and the like. |  |  | X |
| 2 | In-shore fishing vessels, sailing boats, speedboats and the like. |  | X | X |
| 3 | Aids to Navigation with radar reflector. | X | X | X |
| 4 | Small metal ships, fishing vessels, patrol vessels and the like. | X | X | X |
| 5 | Coasters and the like. | X | X | X |
| 6 | Large coasters, bulk carriers, cargo ships and the like. | X | X | X |
| 7 | Container carriers, tankers etc. | X | X | X |

1. Precipitation (rainfall rate) Specification for VTS radar

| **Precipitation** | **Uniformly-Distributed Precipitation [mm/hr]** | | | | **Isolated Shower Intensity and Extent**  **[mm/hr] / [km]** | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Basic** | **Standard** | **Advanced** | | **Basic** | **Standard** | **Advanced** | |
| **On shore** | **Off shore** | **On shore** | **Off shore** |
| Arctic Climate | Nil | 1 | | | Nil | 2 / N/A | | |
| Temperate and subtropical climate | 2 | 4 | 10 | 4 | 4 / 25 | 20 / 10 | 20 / 10 | 10 / 25 |
| Tropic climate | 4 | 10 | 20 | | 20 / 10 | 20 / 10 | 50 / 2 | |
| Special for dry/hot regions | Nil | | | | Nil | | 10 / 25 | |

“Note that rainfall is rare in dry/hot regions, maybe only once or twice per year and the VTS Authority should consider if rain shall be specified at all.” This remark can be misused by manufacturer in some case. For example, if VTS Authority did not consider rain, it is customer’s fault when something bad happened due to rain. Why don’t we use “it is recommend to consider” rather than “should”.

1. Typical Range Performance Predictions for X-band Radar

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Antenna Elevation** | **IALA Target Type** | **Basic** | | **Standard** | | **Advanced** | |
| **Clear** | **Rain**  **2 mm/hr** | **Clear** | **Rain**  **4 mm/hr** | **Clear** | **Rain**  **10 mm/hr** |
| 20 m ASL | 1 | Nil | | Nil | | 0.02-5 NM  SS 0-4 | Nil |
| 2 | 0.02-7 NM  SS 0-3 | 0.02-4NM  SS 0-3 | 0.02-7 NM  SS 0-5 | 0.02-6 NM  SS 0-5 |
| 3 | 0.02-7 NM  SS 0-3 | 0.02-4NM  SS 0-3 | 0.02-8 NM  SS 0-4 | 0.02-5NM  SS 0-4 | 0.02-9 NM  SS 0-6 | 0.02-7 NM  SS 0-6 |
| 4 | 0.02-9 NM  SS 0-4 | 0.02-8 NM  SS 0-4 | 0.02-11 NM  SS 0-5 | 0.02-9NM  SS 0-5 | 0.02-12 NM  SS 0-7 | 0.02-10 NM  SS 0-7 |
| 5 | 0.02-12 NM  SS 0-5 | 0.02-10 NM  SS 0-5 | 0.02-13 NM  SS 0-6 | 0.02-11 NM  SS 0-6 | 0.02-14 NM  SS 0-8 | 0.02-13 NM  SS 0-8 |
| 50 m ASL | 1 | Nil | | Nil | | 0.05-10 NM  SS 0-4 | Nil |
| 2 | 0.05-10 NM  SS 0-3 | 0.05-7 NM  SS 0-3 | 0.05-12 NM  SS 0-5 | 0.05-9 NM  SS 0-5 |
| 3 | 0.05-10 NM  SS 0-3 | 0.05-6 NM  SS 0-3 | 0.05-12 NM  SS 0-4 | 0.05-8 NM  SS 0-4 | 0.05-14 NM  SS 0-6 | 0.05-12 NM  SS 0-6 |
| 4 | 0.05-13 NM  SS 0-4 | 0.05-12 NM  SS 0-4 | 0.05-15 NM  SS 0-5 | 0.05-13 NM  SS 0-5 | 0.05-17 NM  SS 0-7 | 0.05-15 NM  SS 0-7 |
| 5 | 0.05-16 NM  SS 0-5 | 0.05-15 NM  SS 0-5 | 0.05-18 NM  SS 0-6 | 0.05-17NM  SS 0-6 | 0.05-20 NM  SS 0-8 | 0.05-18 NM  SS 0-8 |
| 100 m ASL | 1 | N/A | | Nil | | 0.1-12 NM  SS 0-4 | Nil |
| 2 | 0.1-13 NM  SS 0-3 | 0.1-5 NM  SS 0-3 | 0.1-16 NM  SS 0-5 | 0.1-10 NM  SS 0-5 |
| 3 | 0.1-17 NM  SS 0-4 | 0.1-10 NM  SS 0-4 | 0.1-18 NM  SS 0-6 | 0.1-16 NM  SS 0-6 |
| 4 | 0.1-20 NM  SS 0-5 | 0.1-19 NM  SS 0-5 | 0.1-22 NM  SS 0-7 | 0.1-20 NM  SS 0-7 |
| 5 | 0.1-23 NM  SS 0-6 | 0.1-22 NM  SS 0-6 | 0.1-25 NM  SS 0-8 | 0.1-23 NM  SS 0-8 |

Before actual installation of the radar, above numbers only can be calculated with simulator such as Carpet, and the numbers are usually included on the proposal. Even if we say our RADAR is standard according to the calculation and Standard level is more than enough for this VTS, the bid evaluators will only give higher score to the proposal with advanced system, then every participant would have to propose luxurious radar system to get more score and who would want this situation? The one who can make the best and most expansive RADAR. Does grandmother need supercar for Sunday driving?

# Committee requested to

1. Not approve v-128 edition 4
2. Start from the scratch to review whole document word by word and make it easy to understand.
3. Remove all Basic-Standard-Advanced terms. And leave only “Standard” level with numbers of basic level performance so that more choices can be given to customer.

1. Input document number, to be assigned by the Committee Secretary [↑](#footnote-ref-1)
2. Leave open if uncertain [↑](#footnote-ref-2)