Channel Load
for AIS Transmission Channels

Entry Fields (green), (Locked Fields (brown))		Manoeuvring Characteristics	
No of Units	**Message Interval [s]**		**bps**
Basestation			
1	3,33	Basestation (#04)	77
1	tbd	Basestation Data Link Management Message (#20)	0
1	tbd	Basestation Channel Management Message (#22)	0
Class A AIS			
50	180	Ship at anchor or moored and not moving faster than 3 knots	71
20	10	Ship at anchor or moored and moving faster than 3 knots	515
10	10	Ship 0-14 knots	259
10	3,33	Ship 0-14 knots and changing course	771
200	6	Ship 14-23 knots	8.536
20	2	Ship 14-23 knots and changing course	2.563
10	2	Ship >23 knots	1.283
5	2	Ship >23 knots and changing course	643
Class B AIS			
1	180	shipborne mobile equipment not moving faster than 2 knots	4
200	30	shipborne mobile equipment moving 2-14 knots	1.710
20	15	shipborne mobile equipment moving 14-23 knots	344
5	5	shipborne mobile equipment moving >23 knots	259
Other Stationary or Moving Objects			
0	10	SAR Aircraft (#09)	0
0	180	Aid to navigation (#21)	0
Experimental Broadcast Binary Messages			
0	tbd	Meteorological & Hydrological Data (IMO App. 01)	0
0	tbd	Fairwax Closed (IMO App. 03)	0
0	tbd	Pseudo AIS Targets (IMO App. 07) -- (max. 7 targets)	0
Experimental Addressed Binary Messages			
0	tbd	Tidal Window (Shore to Ship) -- (IMO App. 04)	0
0	tbd	Tidal Window Acknowledgement (Ship to Shore)	0
0	tbd	Dangerous Cargo Information (Ship to Shore) -- (IMO App. 02)	0
0	tbd	Extended Ship Data (Ship to Shore) -- (IMO App. 05)	0
0	tbd	Number of Persons onboard (Ship to Shore) -- (IMO App. 06)	0
0	tbd	Number of Persons onboard Acknowledgement (Shore to Ship)	0
		Message load in the air (Max for two radio channels: 19200):	**17.035**
		Percentage of max capacity (19200 bps):	**89%**
No of Basestations			
1		Max. basestation overhead and spare capacity (bps)	19.200
		Assumed maximum channels use (of max 38400 bps):	**36.235**

The calculation assumes:

1. Ship static and voyage related reports are included in Class A and Class B Baud rates.
2. 0 and tbd (to be defined) => enter assumed values.
3. Max Baud rate of the two radio channels: 2x9600 bps.
4. Max output Baud rate of an AIS basestation: 38400 bps.
5. All overhead communications with the basestation < 19200 baud.
6. The 'experimental' messages may not be displayed in the MKD aboard.

Please note that for a data transfer by WAN/LAN, the capacity of the transmission channel should have at least twice the assumed maximum Baud rate calculated above, due to LAN overhead.

No responsibility is taken for the correctness of the information provided in the above spreadsheet.

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