

## ASSIST Data Fields/Codes

*Data fields and lookup tables used in observations.*

*All ASSIST observation parameters are listed below with header codes ( ), descriptions, and data codes with values . \* = P, S, or T if Primary, Secondary, or Tertiary ice, respectively. Units of measurement are noted when necessary. No observation is recorded as blank.*

<b>GENERAL</b> <b>PRIMARY OBSERVER (PO)</b> <b>ADDITIONAL OBSERVER/S (AO)</b> Full name <i>Add your name to the menu on first observation.</i> <b>OBSERVATION DATE/TIME (Date)</b> YYYY-MM-DD HH:MM:SS UTC <i>Converts computer time to UTC automatically.</i> <b>LATITUDE (LAT)</b> <b>LONGITUDE (LON)</b> DDD.DDD or DD MM.MMM or DD MM SS <i>Converts to decimal degrees automatically.</i>	<b>SHIP HEADING (ShH)</b> Jdegrees Nearest degree  <b>SHIP POWER (ShP)</b> Not Specified 0 1/4 1/2 3/4 Full	<b>SHIP SPEED (ShS)</b> knots Nearest knot  <b>SHIP ACTIVITY (ShA)</b> Not Specified 10 :: Traveling in leads 20 :: Traveling in ice 30 :: Back and ramming 40 :: On station 50 :: Traveling along ice edge	<b>FAUNA NAME (FN)</b> Common or scientific name  <b>FAUNA COUNT (FC)</b> Number of reported species  <b>NOTES (note0, note1, &amp; note2 )</b> Observer's notes <i>Use these three fields for additional observables you create</i>		
<b>ICE</b> <b>TOTAL ICE CONCENTRATION (TC)</b> Tenths <b>PARTIAL ICE CONCENTRATION (*C)</b> 0 :: 1/10 1 :: 1/10 2 :: 2/10 3 :: 3/10 4 :: 4/10 5 :: 5/10 6 :: 6/10 7 :: 7/10 8 :: 8/10 9 :: 9/10 10 :: 10/10  <b>OPEN WATER (OW)</b> 0 :: No openings 1 :: Small cracks 2 :: Very narrow breaks, <50m 3 :: Narrow breaks, 50-200m 4 :: Wide breaks, 200-500m 5 :: Very wide breaks >500m 6 :: Leads 7 :: Polynya 8 :: Water broken only by scattered floes 9 :: Open sea 10 :: Strips and patches  <b>ICE TYPE (*T)</b> <b>OTHER ICE TYPE THIN (OT)</b> <b>OTHER ICE TYPE THICK (TH)</b> 10 :: Frazil 11 :: Shuga 12 :: Grease 13 :: Slush 20 :: Nilas 30 :: Pancakes 40 :: Young Grey Ice, 10-15cm 50 :: Young Grey Ice, 15-30cm 60 :: First Year, < 70cm 70 :: First Year, 70-120cm 80 :: First Year, > 120cm 75 :: Second Year 85 :: Multiyear 90 :: Brash 95 :: Fast Ice  <b>ICE THICKNESS (*Z)</b> cm Total ice thickness in cm  <b>FLOE SIZE (*F)</b> 100 :: Pancakes 200 :: New sheet ice 300 :: Brash/Broken ice 400 :: Cake ice, < 20m 500 :: Small floes, 20-100m 600 :: Medium floes, 100-500m 700 :: Large floes, 500-2000m 800 :: Vast floes, >2000m 900 :: Bergy floes	<b>SNOW TYPE (*SY)</b> 00 :: No snow observation 01 :: No snow, ice or brash 02 :: Cold new snow, <1 day old 03 :: Cold old snow 04 :: Cold wind-packed snow 05 :: New melting snow(wet new) 06 :: Old melting snow 07 :: Glaze 08 :: Melt slush 09 :: Melt puddles 10 :: Saturated snow 11 :: Sastrugi  <b>SNOW DEPTH (*SN)</b> cm Depth of surface snow  <b>TOPOGRAPHY TYPE (*Top)</b> 100 :: Level ice 200 :: Rafted Pancakes 300 :: Cemented Pancakes 400 :: Rafting 500 :: Ridges  <b>TOPOGRAPHY CONC (*TopC)</b> Tenths 0 :: 0/10 1 :: 1/10 2 :: 2/10 3 :: 3/10 4 :: 4/10 5 :: 5/10 6 :: 6/10 7 :: 7/10 8 :: 8/10 9 :: 9/10 10 :: 10/10  <b>RIDGE HEIGHT (*RH)</b> m To nearest half meter  <b>TOPO FEATURE OLD?</b> <b>TOPO FEATURE CONSOLIDATED?</b> <b>TOPO FEATURE SNOW-COVERED?</b> Yes :: True No :: False	<b>MELT POND CONC (*MPC)</b> Tenths 0 :: 0/10 01 :: 1/10 2 :: 2/10 3 :: 3/10 4 :: 4/10 5 :: 5/10 6 :: 6/10 7 :: 7/10 8 :: 8/10 9 :: 9/10 10 :: 10/10  <b>MELT POND PATTERN (*MPP)</b> 1 :: Linked 2 :: Discrete  <b>MELT POND SURFACE TYPE (*MPT)</b> 1 :: Frozen 2 :: Open 3 :: Bottom up  <b>MELT POND FREEBOARD (*MPF)</b> cm Height of MP freeboard above MP surface  <b>MELT POND DEPTH (*MPD)</b> cm 1 :: 0-10cm 2 :: 10-30cm 3 :: 30-50cm 4 :: >50cm -9 :: Unknown  <b>MELT POND BOTTOM TYPE (*MBT)</b> 1 :: Solid 2 :: Some have thaw holes 3 :: All have thaw holes  <b>DRIED ICE? (*MDI)</b> <b>ROTTEN ICE? (*MRI)</b> Yes :: True No :: False  <b>ALGAE CONC. (*A)</b> % <b>SEDIMENT CONC. (*SD)</b> 0 :: 0% 1 :: <30% 2 :: <60% 3 :: >60%  <b>ALGAE LOCATION (*AL)</b> 1 :: Top 2 :: Middle 3 :: Bottom  <b>ALGAE DENSITY (*AD)</b> 0 :: Not Visible 1 :: Trace 2 :: Light 3 :: Medium 4 :: Strong <i>See Colour Chart</i>	<b>VISIBILITY (V)</b> m-km 90 :: <50m 91 :: 50-200m 92 :: 200-500m 93 :: 500-1000m 94 :: 1-2km 95 :: 2-4km 96 :: 4-10km 97 :: >10km  <b>TOTAL CLOUD COVER(TCC)</b> Oktas <b>HIGH CLOUD COVER (HV)</b> <b>MEDIUM CLOUD COVER (MV)</b> <b>LOW CLOUD COVER (LV)</b> 0 :: 0 1 :: 1/8 or less, but not 0 2 :: 2/8 3 :: 3/8 4 :: 4/8 5 :: 5/8 6 :: 6/8 7 :: 7/8 or more, but not 8/8 8 :: 8/8  <b>WEATHER (WX)</b> <b>00-03 Sky Change During Past Hour</b> 000 :: Clouds not observable/observed 001 :: Clouds dissolving/becoming less developed 002 :: State of sky as a whole unchanged 003 :: Clouds forming or developing  <b>10-13 Mist and Shallow Fog</b> 010 :: Mist (Visibility 1/2 nm or more) 011 :: Shallow fog in patches 012 :: Shallow fog, more or less continuous  <b>14-16 Precipitation not at ship</b> 014 :: Precipitation in sight, not reaching surface 015 :: Precipitation beyond 3nm, reaching surface 016 :: Precipitation within 3nm, reaching surface  <b>20-29 Past Hour but NOT at Ob</b> 020 :: Drizzle not freezing or snow grains 021 :: Rain not freezing or snow grains 022 :: Snow not freezing or snow grains 023 :: Rain and snow or ice pellets 024 :: Drizzle or rain, freezing 025 :: Showers of rain 026 :: Showers of snow, or of rain and snow 027 :: Showers of hail, or of rain and hail 028 :: Fog in past hour, not at present 029 :: Thunderstorm, with or without precip  <b>36-39 Unique Snow Conditions</b> 036 :: Drifting snow below eye level, slight/moderate 037 :: Drifting snow below eye level, heavy 038 :: Blowing snow, above eye level, slight/moderate 039 :: Blowing snow, above eye level, heavy	<b>PHOTO NAME (Photo)</b> Uploaded photo  <b>PHOTO PERSPECTIVE (PhP)</b> Not Specified Port Forward Other  <b>PHOTOS</b>	<b>COMMENTS (COMM)</b> Observer's comments  <b>COMMENTS</b>
<b>HIGH CLOUD TYPE (HY)</b> Ci :: Cirrus Cs :: Cirrostratus Cc :: Cirrocumulus  <b>MED. CLOUD TYPE (MY)</b> As :: Altostratus Ac :: AltoCumulus  <b>LOW CLOUD TYPE (LY)</b> St :: Stratus Sc :: Stratocumulus Ns :: Nimbostratus Cu :: Cumulus Cn :: Cumulonimbus  <b>HIGH CLOUD HEIGHT (HH)</b> km 3 - 8km  <b>MEDIUM CLOUD HEIGHT (MH)</b> km 2 - 4km  <b>LOW CLOUD HEIGHT (LH)</b> km Surface - 2km	<b>WIND SPEED (WS)</b> Knot Nearest knot  <b>WIND DIRECTION (WD)</b> Degree Nearest degree  <b>AIR TEMPERATURE (AT)</b> °C Nearest degree, C  <b>WATER TEMPERATURE (WT)</b> °C Nearest degree, C  <b>RELATIVE HUMIDITY (ReH)</b> Nearest %  <b>AIR PRESSURE (AP)</b> mBar Nearest mBar	<b>40-49 Fog at the Time of Ob</b> 040 :: Fog: distance, not at ship in past hour**Vis may be >1/2 041 :: Fog in patches 042 :: Fog thinning in last hour, sky discernable 043 :: Fog thinning in last hour, sky not discernable 044 :: Fog unchanged in last hour, sky discernable 045 :: Fog unchanged in last hour, sky not discernable 046 :: Fog beginning/thickening in last hour, sky discernable 047 :: Fog beginning/thickening in last hour, sky not discernat 048 :: Fog depositing rime, sky discernable 049 :: Fog depositing rime, sky not discernable  <b>50-59 Drizzle</b> 050 :: Slight drizzle, intermittent 051 :: Slight drizzle, continuous 052 :: Moderate drizzle, intermittent 053 :: Moderate drizzle, continuous 054 :: Dense drizzle, intermittent 055 :: Dense drizzle, continuous 056 :: Freezing drizzle, slight 057 :: Freezing drizzle, moderate or dense 058 :: Drizzle and rain, slight 059 :: Drizzle and rain, moderate or dense  <b>60-69 Rain NOT Falling as Showers</b> 060 :: Slight rain, intermittent 061 :: Slight rain, continuous 062 :: Moderate rain, intermittent 063 :: Moderate rain, continuous 064 :: Heavy rain, intermittent 065 :: Heavy rain, continuous 066 :: Freezing rain, slight 067 :: Freezing rain, moderate or heavy 068 :: Rain or drizzle and snow, slight 069 :: Rain or drizzle and snow, moderate/heavy	<b>70-79 Solid Precip. Not as Showers</b> 070 :: Slight fall of snow flakes, intermittent 071 :: Slight fall of snow flakes, continuous 072 :: Moderate fall of snow flakes, intermitter 073 :: Moderate fall of snow flakes, continuous 074 :: Heavy fall of snow flakes, intermittent 075 :: Heavy fall of snow flakes, continuous 076 :: Ice prisms, with/without fog 077 :: Snow grains, with/without fog 078 :: Isolated star like crystals 079 :: Ice pellets  <b>80-84 Rain Showers</b> 080 :: Slight rain showers 081 :: Moderate or heavy rain showers 082 :: Violent rain showers 083 :: Slight showers of rain and snow 084 :: Moderate/heavy showers of rain and snow  <b>85-90 Solid Precipitation in Showers</b> 085 :: Slight snow showers 086 :: Moderate or heavy snow showers 087 :: Slight showers of soft or small hail 088 :: Moderate/heavy showers of soft/small hail 089 :: Slight showers of hail 090 :: Moderate or heavy showers of hail		