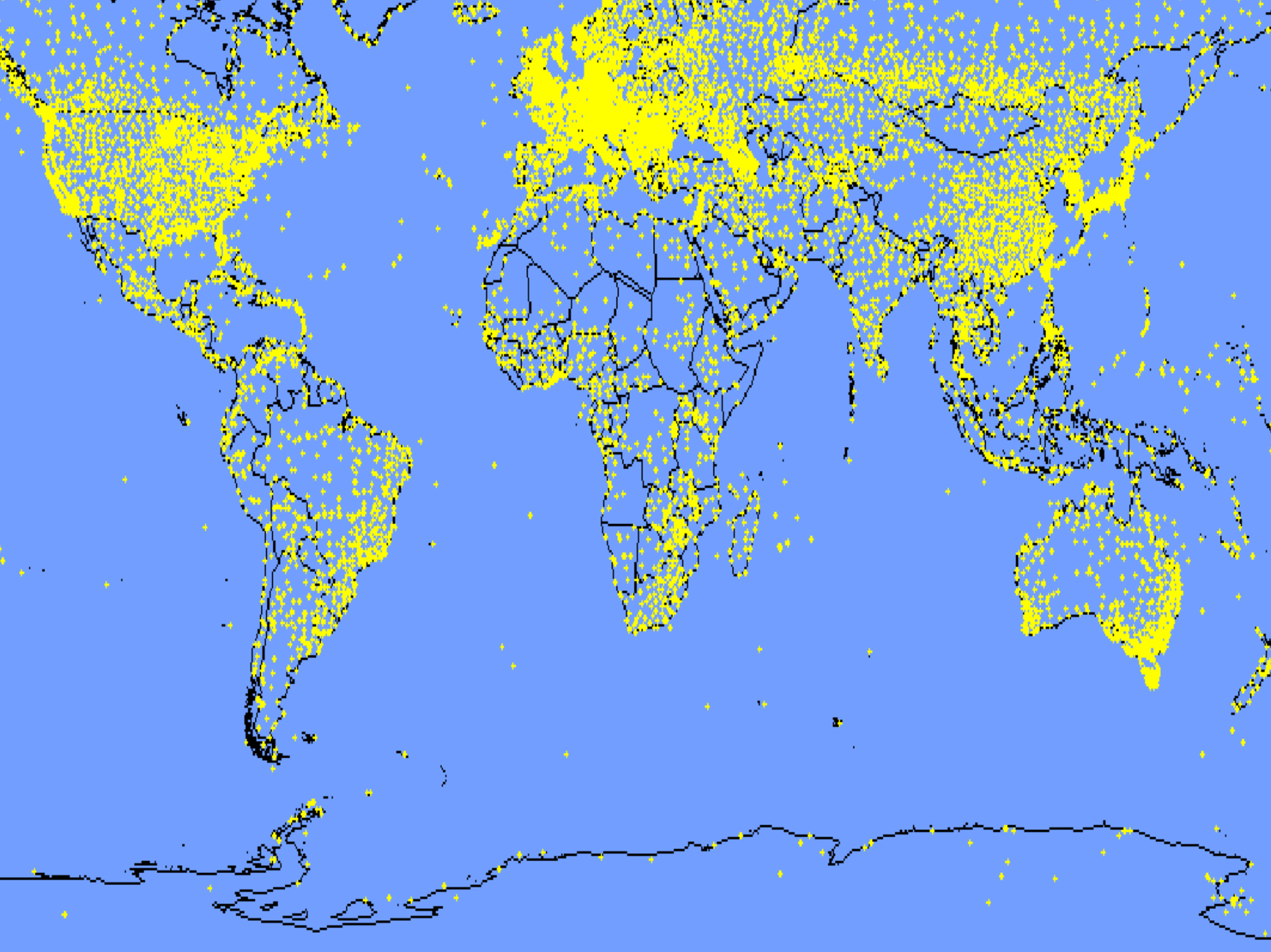


Views, Objects, and Persistence: Accessing a High Volume Global Data Set

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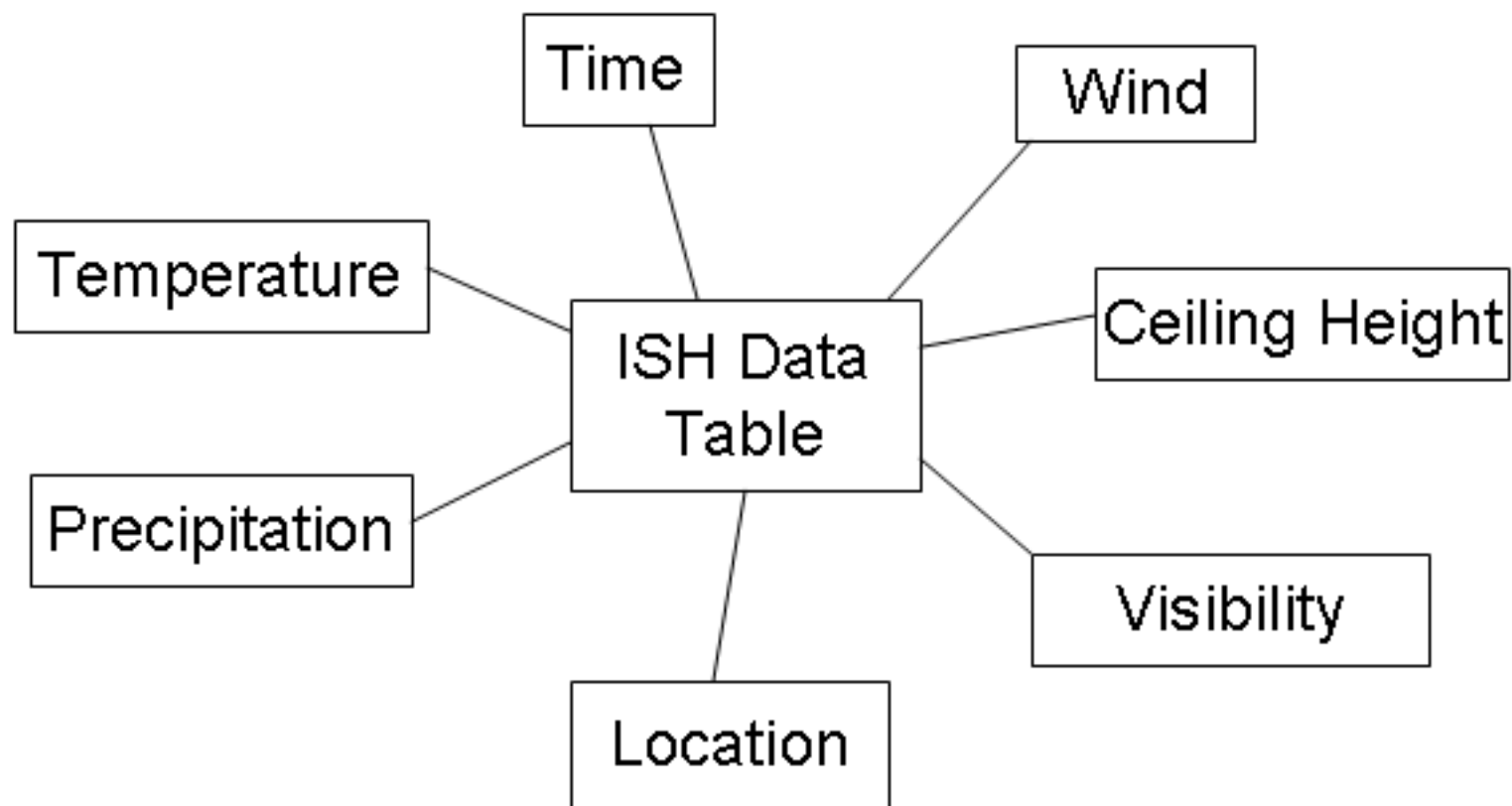


ISH WIND SUMMARY

POR 01/01/1995 - 04/01/1995

Station ID: 72315003812

| 16 point | 1 - 3 | 4 - 6 | 7 - 10 | 11-16 | 17-21 | 22-27 | 28-33 | 34-40 | 41-47 | 48-55 | >=56 | Total Percent | Mean Wind Speed |
|----------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|------|---------------|-----------------|
| N | 0.662 | 4.016 | 4.679 | 6.915 | 1.200 | 0.207 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 17.68 | 10.55 |
| NNE | 0.828 | 3.643 | 5.134 | 8.737 | 2.567 | 0.538 | 0.041 | 0.0 | 0.0 | 0.0 | 0.0 | 21.49 | 11.60 |
| NE | 0.455 | 2.898 | 1.946 | 1.532 | 0.745 | 0.082 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.660 | 9.368 |
| ENE | 0.289 | 0.496 | 0.165 | 0.372 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.325 | 7.274 |
| E | 0.124 | 0.248 | 0.124 | 0.082 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.579 | 6.720 |
| ESE | 0.207 | 0.207 | 0.041 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.455 | 4.603 |
| SE | 0.165 | 0.207 | 0.124 | 0.041 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.538 | 5.805 |
| SSE | 0.331 | 0.745 | 0.248 | 0.041 | 0.041 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.407 | 6.105 |
| S | 1.697 | 5.672 | 3.395 | 1.076 | 0.248 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 12.09 | 7.037 |
| SSW | 1.283 | 6.501 | 3.850 | 0.828 | 0.124 | 0.041 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 12.62 | 7.160 |
| SW | 0.786 | 5.797 | 2.443 | 0.828 | 0.082 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.937 | 7.002 |
| WSW | 0.372 | 1.159 | 0.289 | 0.165 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.987 | 6.175 |
| W | 0.372 | 0.579 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.952 | 4.023 |
| WNW | 0.082 | 0.207 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.289 | 4.572 |
| NW | 0.124 | 0.124 | 0.041 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.289 | 4.545 |
| NNW | 0.165 | 0.745 | 0.207 | 0.165 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.283 | 6.239 |
| VAR | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| CLM | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.399 | 0.0 |
| ALL | 7.950 | 33.25 | 22.69 | 20.78 | 5.010 | 0.869 | 0.041 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 8.070 |



| | Serialization | | JDBC | ODBMS | EJB | JDO |
|----------------------|---------------|-----------|----------|----------|----------|----------|
| Transactional | | | X | X | X | X |
| API | java.io | Sleepycat | JDBC | ODMG | EJB | JDO |
| SQL | | | SQL | OQL | EJBQL | JDOQL |
| Data Store Paradigm | Filesystem | | RDBMS | ODBMS | RDBMS | X |
| True Object Database | | X | | X | | |
| Manages Concurrency | | | | X | | X |

| | Load | Fetch |
|--------------------|-------------|--------------|
| Stream File | 21 msec | 12 msec |
| Key/Value | 2 msec | 23 msec |
| ODBMS | 45 msec | 65 msec |
| RDBMS | 180 msec | 39 msec |

Data I/O Rates

