All Fields marked with * are mandatory.

Change Request #:	**271**
Assigned OGC Document #:	**13-008**
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Document Name/Version:	*GeoAPI 3.0 Implementation Standard / 3.0
OGC Project Document:	*09-083r3

If this is a revision of a previous submission and you have a Change Request Number, then check here: ☐

Enter the CR number here: [_____]

Enter the Revsion Number that you are revising here: [_____]

Title:ⓘ	* [GeoAPI 3.0 SWG] Replace JSR–275 dependency by org.unitsofmeasure
Source:ⓘ	*http://jira.codehaus.org/browse/GEO-190
Work item code:ⓘ	
Category:ⓘ	* F (Critical correction) ⇕

Reason for change:ⓘ	* The JSR–275 (Java Specification Request) effort terminated without success just before GeoAPI 3.0.0 release. The javax.measure packages do not officially exist. We waited two years to see if a new JSR would appear, but the situation is still uncertain. On the other side, the org.unitsofmeasure alternative is now part of Eclipse ecosystem and have at least 3 implementations.
Summary of change:ⓘ	* Replace all references to javax.measure.unit.Unit by reference to org.unitsofmeasure.Unit. This is an incompatible change affecting directly all the following interfaces: Band, CoordinateSystemAxis, CSAuthorityFactory, CSFactory,

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DatumFactory, Ellipsoid, Medium, ParameterDescriptor, ParameterValue,
PrimeMeridian, QuantitativeResult.

In addition, the following method may need to be update for using the
appropriate Measure type instead than the unitless double primitive
type:

    Band.getNominalSpatialResolution()
    Dimension.getResolution()
    EnvironmentalRecord.getAverageAirTemperature()
    EnvironmentalRecord.getMaxAltitude()
    EnvironmentalRecord.getMaxRelativeHumidity()
    NominalResolution.getGroundResolution()
    NominalResolution.getScanningResolution()
    Resolution.getDistance()
```

Consequences if not approved:	GeoAPI would still depends on an unapproved Unit object which will not get bug fix anymore, and vendors would have no way to provide their own Unit implementations.

Clauses affected:	* Section 8.1.6, especially table 6.
Additional Documents affected:	Above-cited Java interfaces.
Supporting Documentation:	
Comments:	
Status:	Assigned
Assigned To:	GeoAPI 3.0 SWG
Disposition:	Referred and Posted