Log Summary: RT Plan reference to acquisition frame of reference

Type of Modification: Extension
Name of Standard: PS 3.3-2001

Rationale for Correction:

The RT Structure Set object provides capability for referencing one or more sets of acquisition images used for structure definition. These image sets do not necessarily have the same frame of reference, and the RT Structure Set object provides a mechanism for relating these multiple frames of reference.

The RT Plan object contains attributes such as Isocenter Position (300A,012C) that are related to a specific Frame of Reference. Currently, there is no explicit indication in the RT Plan object which of the Frames of Reference described in the related RT Structure Set is to be used. Current implementations must be based on a single Frame of Reference for these attributes to be unambiguously interpreted.

However, when multiple image sets with different but related frames of reference (such as in multimodality applications) are present in the RT Structure Set, it is necessary to identify which of these Frames of Reference is used in an associated RT Plan. In addition, this allows RT Plan objects to be linked directly to image sets when no RT Structure Set object is present.

Sections of document affected:

Part 3 (Information Object Definitions), Section A.1.4 (Overview of the Composite IOD Module Content) and Section A.20.3 (RT Plan IOD Module Table)

Correction Wording:

In Part 3, Table A.20.3-1 (RT Plan IOD Modules), add the following module after the RT Series Module:

<table>
<thead>
<tr>
<th>IE</th>
<th>Module</th>
<th>Reference</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frame of Reference</td>
<td>Frame of Reference</td>
<td>C.7.4.1</td>
<td>U – See Note 1</td>
</tr>
</tbody>
</table>

Add the following note:

Note 1
The RT Structure Set referenced in Referenced Structure Set Sequence (300C,0060) of the RT General Plan Module may contain more than one item in the Referenced Frame of Reference Sequence (3006,0010) in the Structure Set Module. In this case, it is highly recommended that the Frame of Reference Module by supplied in the RT Plan object, to unambiguously specify the frame of reference of the RT Plan contents.

In Part 3, Table A.1-2 (Composite Information Object Modules Overview – Non-images), add “U” to box at the intersection of the Frame of Reference row and the RT Plan column.