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**Office of Engineering and Technology  
Federal Communications Commission**  
7435 Oakland Mills Road  
Columbia  
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October 10<sup>th</sup>, 2001

Gentlemen,

***FCC ID: PJ5MTX2-8P***

The Commission has already given a grant of type acceptance for the Raymarine 'Pathfinder' 2D Radome Radar Scanner Unit (FCC ID: PJ5MTX2). This application for authorization of a new grant has resulted from proposed changes to enhance performance, which affect the characteristics originally reported to the commission. The new Scanner Unit can be connected to any of the same display units that are currently in use, to form light marine radar systems.

The primary change is to the Modulator/PSU PCB. Although the peak-radiated power remains the same at 2 kW, there are now 8 different pulse widths (instead of 3), which are switched according to the range scale selected at the Display Unit. To further optimize performance the PRF (Pulse Repetition Frequency) for each pulse width has been set, resulting in 6 different PRFs (previously there were 3). This 8-pulse width modulator has an almost identical design to Raymarine's two open array scanner units (FCC ID: PJ5MTX5 and PJ5MTX9), which have grants of type acceptance from the Commission.

Apart from a software change on the IF PCB, to control the new pulse widths/PRFs, there are no other significant changes.

The new 8-pulse width scanner unit has been fully tested to the appropriate parts of CFR 47 Part 2 and Part 80 by the FCC accredited test house Radio Frequency Investigation Ltd. The measurement data demonstrates that the scanner continues to be compliant with the rules and the performance is within the technical ratings specified by Raymarine (manufacturer).

The modifications will be introduced to all new scanner units of this type in production after the grant has been authorized.

Sincerely,

A handwritten signature in black ink, appearing to read 'C. Bird', with a stylized flourish underneath.

Chris Bird,  
Approvals Manager,  
Raymarine Limited.