

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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TOYOTA MOTOR CORPORATION

Petitioner

v.

AMERICAN VEHICULAR SCIENCES

Patent Owner

Patent No. 5,845,000

Issue Date: December 1, 1998

Title: OPTICAL IDENTIFICATION AND MONITORING SYSTEM USING  
PATTERN RECOGNITION FOR USE WITH VEHICLES

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**PATENT OWNER'S RESPONSE  
PURSUANT TO 37 CFR § 42.120**

Case No. IPR2013-00424

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## I. INTRODUCTION

Patent Owner American Vehicular Sciences (“AVS”) submits the following response under 37 CFR §42.120 to the Petition filed by Toyota Motor Corporation (“Toyota”) requesting *inter partes* review of certain claims of U.S. Pat. No. 5,845,000 (“the ‘000 patent”). This filing is timely pursuant to the Board’s Scheduling Order and the parties’ stipulation extending the deadline to March 24, 2014. (*See* Paper 17, Scheduling Order at 2 (“The parties may stipulate to different dates for DUE DATES 1 through 3 (earlier or later, but no later than DUE DATE 4).”); Paper 26, Notice of Stipulation).)

AVS respectfully submits that the arguments presented and the additional evidence submitted, such as testimony from AVS expert Professor Cris Koutsougeras, PhD, show that at least claims 10, 11, 16, 17, 19, 20, and 23 of the ‘000 patent are not anticipated or obvious in view of the grounds for review.

Specifically, none of the prior art raised in the grounds for review discloses or teaches at least one key requirement in claims 10, 11, 16, 17, 19, 20, and 23 of the ‘000 patent: a “trained pattern recognition means” that is “structured and arranged to apply a pattern recognition algorithm generated from data of possible exterior objects and patterns of received electromagnetic illumination from the possible exterior objects” (claims 10, 11, and 19); “trained pattern recognition means” that is “structured and arranged to apply a pattern recognition algorithm

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