

**MEMORANDUM**

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To:	Lisa Matichak, City of Mountain View; Jean Mordo, Los Altos	Project Name:	San Jose South Flow Arrivals Ad Hoc Committee
Cc:	Christina Gilmore, City of Mountain View	Project Number:	1810.01
From:	Randy Waldeck, CSDA Dennis Hughes, Hughes AV	Subject:	Proposed Visual South Flow Arrival Route
Date:	April 27, 2018		

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As a follow-up to our preliminary noise reduction alternatives memo dated March 7 (updated on March 22), we have further refined the proposed visual approach for South Flow. This approach extends the current turn that aircraft execute over Mountain View (shown in white in the figure on the following) page, and routes aircraft over Highway 85 and then over the Google campus before executing the right “u-turn” over the Bay to line up for final approach with RWY 12R. The benefits to this approach are as follows:

1. Level flight over Mountain View, Los Altos, and other South Peninsula communities.
2. Turn executed over the Bay. Since descending aircraft typically apply power (thrust) in a turn, turning aircraft often generate higher noise levels than descending aircraft flying straight. We plan to investigate this further in the AEDT.
3. Higher altitude due to longer track length. Currently, aircraft cross ZORSA at 3,000 feet (on average). With this proposed arrival path, aircraft will likely be approximately 1,500 to 2,000 feet higher (as our proposed track is approximately 6 nautical miles longer than the track which turns over Moffett Field). Roughly speaking, this increased altitude would result in 4 dBA decrease in noise levels due to the increased altitude.

Our proposed visual approach would take those aircraft currently being vectored at low altitude to an instrument procedure at higher altitudes utilizing a stable descent. Figure 1 illustrates the proposed path.

Note that this approach can only be used under Visual Flight Rules (i.e., when visibility is at least 5 nautical miles and the ceiling is at least 2,500 feet). This approach could be coded into the Flight Management Computer and avoids the need for the pilot to “hand fly” this procedure which results in the procedure being more tightly followed.

The proposed flight path, shown in red, generally follows the same flight path as currently utilized, but the turn for final approach is initiated later (currently it occurs around Moffett NAS); we propose that it occur midway between the Dumbarton Bridge and Moffett NAS. While the overall flight path is longer (approximately six nautical miles), we do not expect fuel burn/emissions to be significantly increased if aircraft follow a continuous descent profile (e.g., idle thrust). Flight times may be increased by a few minutes.



Figure 1: Proposed Charted Visual Approach (in red)

We plan to model this new arrival path to quantify the expected noise reduction as compared to the current flight path in the AEDT software.