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Current Flight Paths

- ✓ Current approach and departure paths are all over water and avoid noise sensitive areas
- ✓ Flight paths are typically based on guidance from ground based navigational aids which result in linear paths

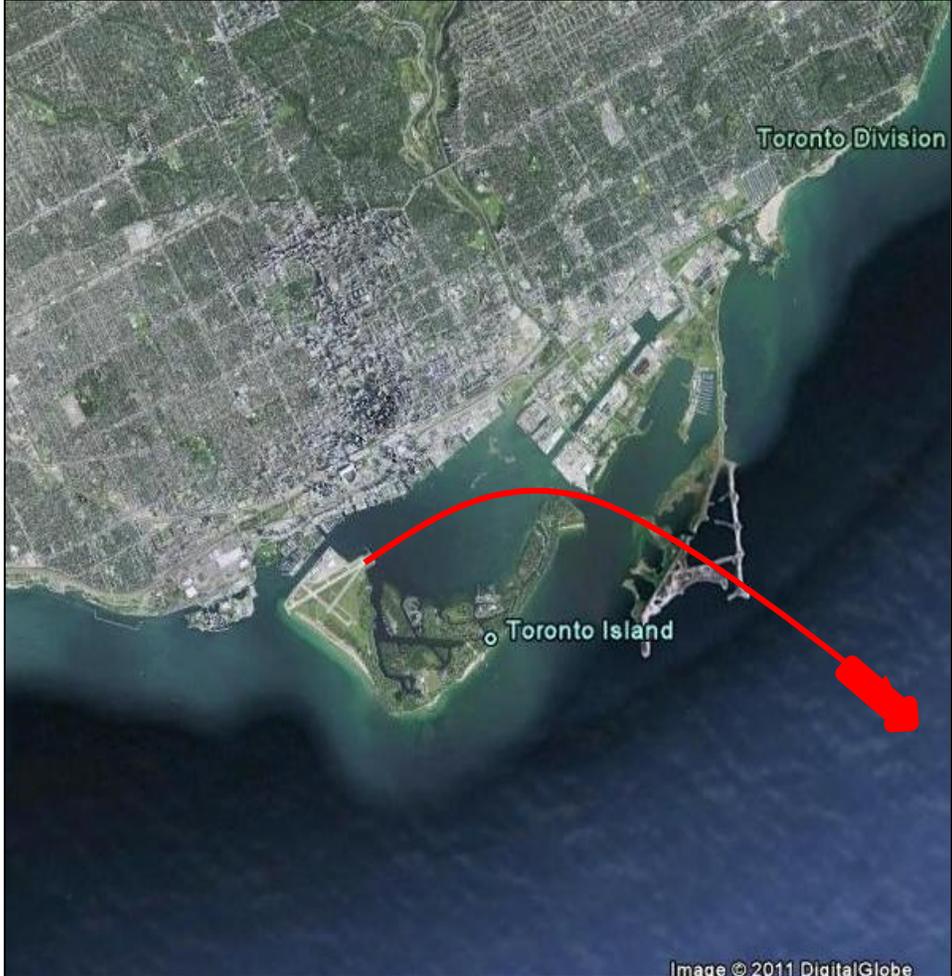
Departure Flight Paths

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Runway 26



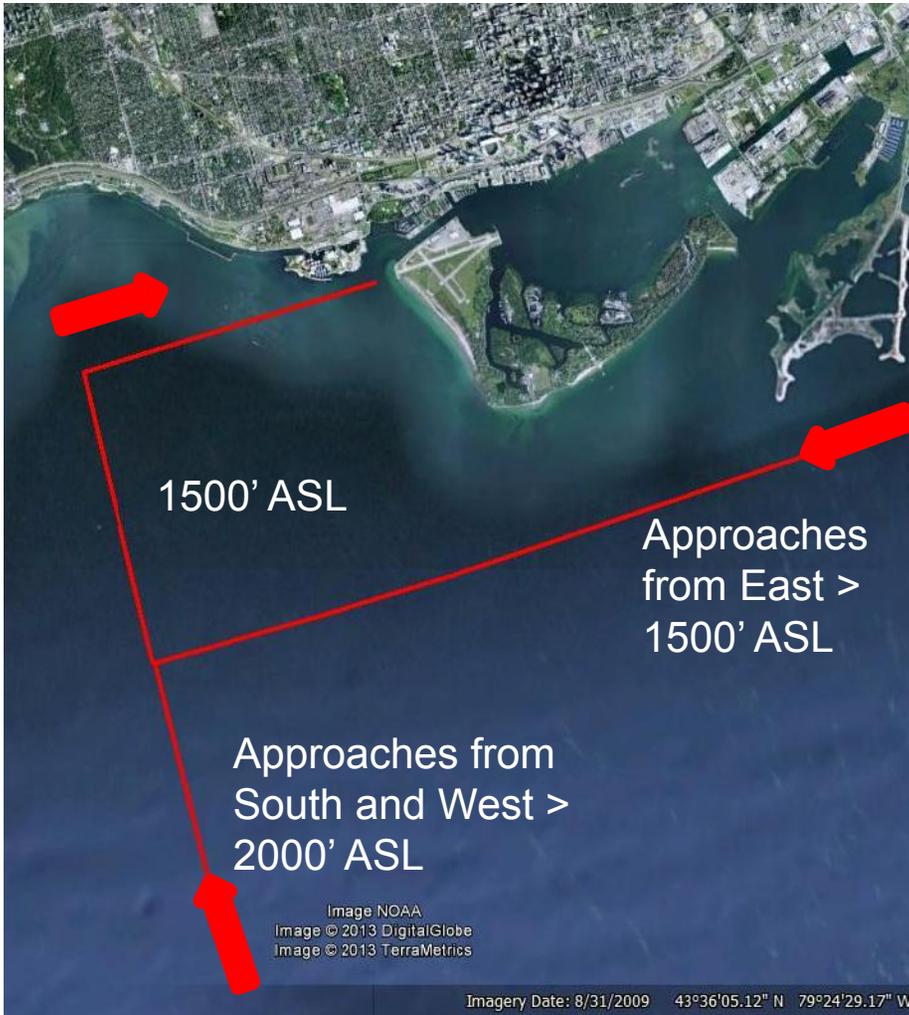
Runway 08



Arrival – Runway 08 (most conditions)

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Visual Approach



RNAV C Approach



Arrival – Runway 08 Low Visibility (~2% of arrivals)

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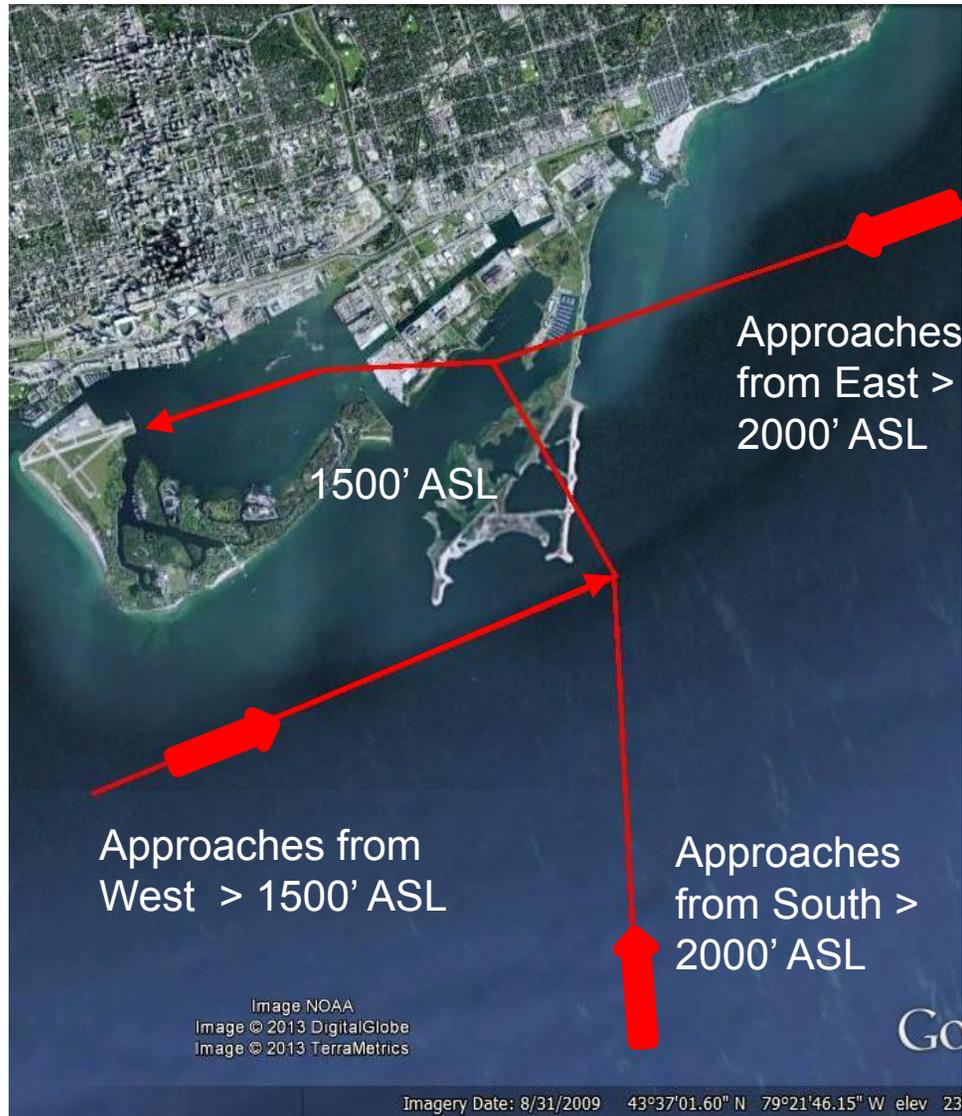
ILS 08 Approach



Arrival – Runway 26

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Visual Approach



ILS 26 Approach



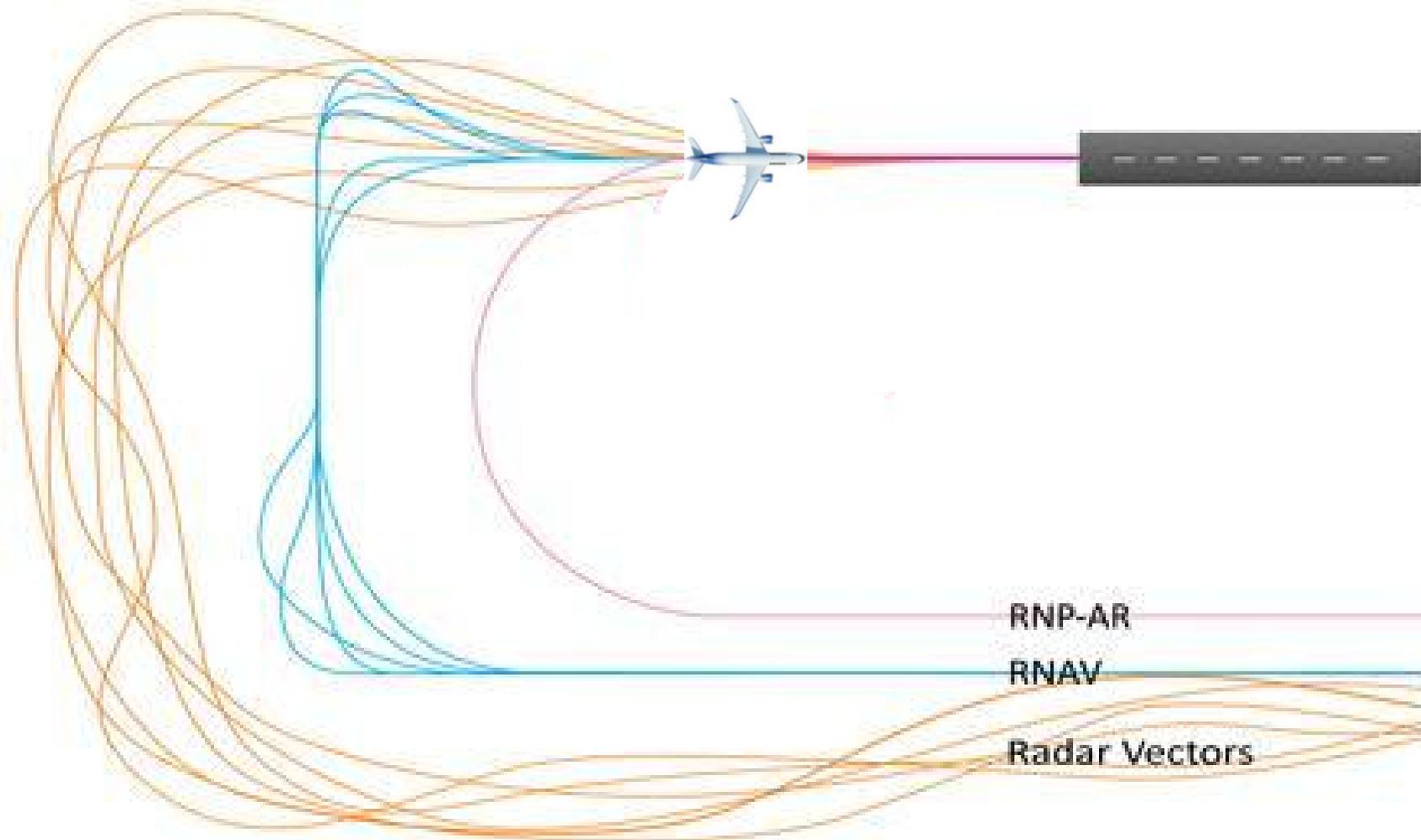
Future Flight Paths

- ✓ CS100 will be approved for RNP, next generation navigational procedures
- ✓ RNP utilizes highly accurate GPS based curved approach and departure paths
- ✓ RNP enables for more direct flight paths on take-offs and landings reducing the kilometers flown on each flight. Benefits include:
 - ✓ Reduced fuel consumption
 - ✓ Reduced emissions
 - ✓ Smaller noise footprint
 - ✓ Smaller protected airspace with fewer restrictions on waterfront development than exists today
- ✓ Porter's investment in RNP technology to support CS100 would also have similar benefits on the Q400 operations

RNP AR Concept Illustration

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- ✓ RNP permits for highly accurate curved flight paths compared to current linear paths (radar vectors / RNAV) being flown
- ✓ RNP flight paths are flown with positive course correction for wind drift and require a smaller protected area



Glossary

- ✓ ASL – above sea level
- ✓ RNP-AR – required navigation performance - authorization required (advanced flight guidance criteria that enables optimum flight profiles)
- ✓ RNAV C – Global Position System (GPS) provides flight guidance
- ✓ ILS – Instrument Landing System – ground based navigation aid that provides flight guidance
- ✓ Visual Approach – “visually flown” maneuver without instrument based flight guidance
- ✓ Low Visibility – Clouds less than 600 ft above ground and visibility less than 1.5 nautical miles

Thank you
Merci

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