CLAIMS

~~1. A towbarless airplane tug comprising:~~

a chassis mounted on a plurality of tug wheels, at least some of said plurality of tug wheels being steerable tug wheels;

an airplane wheel support assembly, mounted on said chassis, for supporting rotatable wheels of a nose landing gear of an airplane;

at least one tug wheel driver operative to drive said plurality of tug wheels in rotation to provide displacement of said chassis;

at least one tug controller operative to control speed of said tug, said at least one tug controller employing at least one feedback loop utilizing a mapping of speed limits along a travel path traversed by said tug and said airplane at said airport as well as an indication of the instantaneous location of said tug and said airplane along a travel path.

2. The towbarless airplane tug of Claim 1, wherein said tug controller is configured to employ the at least one feedback loop by utilizing an input of known desired speed at various locations along the travel path traversed by said tug, obtained by the tug controller using the indication of the instantaneous location of said tug and the and the mapping of speed limits along the travel path.

3. The towbarless airplane tug of Claim 1, wherein said tug controller is configured to employ the at least one feedback loop by utilizing an input of indication of known desired speed obtained by said tug controller from an airplane main pilot controller.

4. The towbarless airplane tug of Claim 1, wherein said mapping of speed limits along a travel path traversed by said tug is determined according to road and environment conditions.

~~5. The towbarless airplane tug of Claim 1, wherein said tug controller is configured to employ the at least one feedback loop by utilizing an input of an indication of obstacles along a travel path traversed by said tug.~~

6. The towbarless airplane tug of Claim 1, wherein said tug controller is further configured to utilize a suitable airport map embedded therein, and an output of a tug location sensor, providing the indicating the indication of the instantaneous location of said tug along the travel path.

7. The towbarless airplane tug of Claim 1, wherein said tug controller is configured for utilizing the mapping of speed limits and the indication of the instantaneous location of said tug by coordinating them with each other.

CLAIMS

1. A towbarless airplane tug, comprising:

a chassis mounted on a plurality of tug wheels, at least some of said plurality of tug wheels being steerable tug wheels;

an airplane wheel support assembly, mounted on said chassis, for supporting rotatable wheels of a nose landing gear of an airplane;

at least one tug wheel driver operative to drive said plurality of tug wheels in rotation to provide displacement of said chassis; and

at least one tug controller operative to control speed of said tug, said at least one tug controller employing at least one feedback loop utilizing an airport map of speed limits that is embedded within said at least one tug controller as well as an indication of an instantaneous location of said tug and said airplane along a travel path, said airport map of speed limits indicating said speed limits along a travel path traversed by said tug and said airplane at an airport.

2. The towbarless airplane tug of claim 1, wherein said at least one tug controller is configured to employ said at least one feedback loop by utilizing an input of known desired speed at various locations along the travel path traversed by said tug, obtained by said at least one tug controller using the indication of said instantaneous location of said tug and said airport map of speed limits along the travel path.

3. The towbarless airplane tug of claim 1, wherein said at least one tug controller is configured to employ said at least one feedback loop by utilizing an input of indication of known desired speed obtained by said at least one tug controller from an airplane main pilot controller.

4. The towbarless airplane tug of claim 1, wherein said airport map of speed limits along a travel path traversed by said tug is determined according to road and environment conditions.

5. The towbarless airplane tug of claim 1, wherein said at least one tug controller is configured to employ said at least one feedback loop by utilizing an input of an indication of obstacles along a travel path traversed by said tug.

6. The towbarless airplane tug of claim 1, wherein said at least one tug controller is further configured to utilize an output of a tug location sensor providing said indication of said instantaneous location of said tug along said travel path.

7. The towbarless airplane tug of claim 1, wherein said at least one tug controller is configured for utilizing said airport map of speed limits and said indication of the instantaneous location of said tug by coordinating them with each other.