

46ESS-80: China aero gas turbine engines and technology evolution

Chenyu Gan

The topic mainly describes the technology development history of China aviation gas turbine engines with the technical characteristics of each phase, and the development direction of China aero gas turbine engines with the advantages and disadvantages nowadays. In the first part, it lists the major engine types in the past, as cases study for analyzing the performance characteristics of each phase of the engine development in Chinese aero engine's history, and discusses which section is the main technical innovation and performance improvement among every phase. Whilst the other part is the analysis of representative engines in today's China aero gas turbine engines with a lateral comparison to the international corresponding engines, also vertical compared to the engines in the past, in order to seek the advantages and the disadvantages of the China aero gas turbine engine types. As well as analysis the reason causes these gaps from designing part and manufacturing part. And conclude that the technology development direction of today's China aero gas turbine engines, also the desideration problems needed to solve from the ability of aero engine design and manufacture.