Modern society and climate change: oil and space industries perspectives

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Abstract: Modern society is most often evaluated according to the presence and development stage of the space industry in a country on one hand and of the oil industry on the other. These two completely different industry branches are closely related in sense of prosperity and comfortable living style conditions of a population. However, fundamental differences between these two are most prominent in sense that space industry, primarily with infrastructure of space station and satellites, also including rocket probes and diverse space missions, is strongly influenced by and directly under space weather and space climate conditions as "external" factors, while oil industry, with its upmid- and down-stream sectors and their infrastructures including all of the specificities and diversities, is directly impacted by social components as "internal" factors, with wide range of aspects, such as from e.g. war unstable regions of the Earth, across monetary and market trends to geopolitics. As the oil industry is most often and primarily recognized as the main culprit of accelerated and intensified climate changes, it is often forgotten that climate change is a natural phenomenon in the geological evolution of the Earth. Although historically, oil industry with all related industries had indeed strongly impacted our living conditions, and in continual manners still does in sense of enormous pollution of all spheres of the Earth, including soil, water and air, space industry is often neglected as source of pollution even though produces massive pollutions primarily of the air and also of the soil at the place of launch in first place, but also in the space as well. As two sides of the same coin, global influences of these two industries on climate through pollution processes and related living conditions in modern societies are examined and analyzed, with main findings presented here.

Keywords: climate change, pollution, space industry, oil industry