

[1]高焱,陈汇林,劳小青,等.海南文昌火箭发射场雷电环境分析[J].自然灾害学报,2012,04:182-189.

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## 海南文昌火箭发射场雷电环境分析(PDF)

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Title: Analysis of environmental characteristics of thunderstorm activities at Wenchang Rocket Launching site in Hainan Province

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关键词: 雷暴; 火箭发射场; 环境分析; 海南省

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摘要: 利用海南省18个气象台站的雷暴人工观测资料和海南闪电定位网的观测资料,分析了海南文昌火箭发射场的雷暴特征和雷电环境,结果表明:海南岛的中部和北部雷暴活动较强,西部、东部和南部近海地区的雷暴活动较弱,文昌发射场处在北部较强的雷暴区;采用Krigine(克里格)方法拟合的结果为文昌火箭发射场雷暴日数的年变化从1982年以后逐渐减少,发射场一年中各月都有雷暴发生,4-10月为雷暴高发期;发射场西部、西北部和北部区域雷暴活动较其它区域要强,79%的雷电流强度小于40 kA,而只有5.9%的雷电流强度大于60 kA,一天中闪电的发生有两个高峰时段,一个出现在凌晨5时到6时,另一个时段出现在14时到18时,午后15时左右是闪电活动最频繁的时段。

Abstract: With the observed thunderstorm data of 18 meteorological stations and VLF lightning locating networks data in Hainan Province, the thunderstorm environment and the characteristics of the thunderstorm activities were analyzed for the Wenchang Rocket Launching Site. The results indicate that the thunderstorm activities in the central and northern parts are stronger than those in the western, eastern and the southern coast. The Wenchang Rocket Launching Site is located in the northern area where thunderstorm activities are strong. Fitting results using the Krigine method shows that annual thunderstorm

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days ( $T_d$ ) of the Wenchang Rocket Launch Site have reduced gradually after 1982. Thunderstorm activities occur all the year round, and are much stronger in months from April to October than in other months, west, northwest and north of the Launch Site have stronger thunderstorm activities than other areas. 79% of the lightning currents have the strength lower than 40 kA, while only 5.9% of the lightning currents have the strength higher than 60 kA. The occurrence of the lightning flashes has two peak time intervals in a day, one appears from 5:00 am to 6:00 am, and the another appears from 2:00 pm to 6:00 pm. The highest frequency of lightning flash activities occurs around 3:00pm in the afternoon.

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#### 参考文献/REFERENCES

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