航空应急救援体系设计与运用虚拟仿真竞赛系统

任务推演报告

# 任务介绍

#杭州机场,坐标30.28 N 120.15 E，可以停靠固定翼飞机及直升机。

#义乌机场,坐标29.34 N 120.03 E，可以停靠固定翼飞机及直升机。

#台州机场,坐标28.55 N 121.42 E，可以停靠固定翼飞机及直升机。

#东阳(水源)，坐标29.27 N 120.25 E，附近有水库，可作为水源地。

#柯桥(集结地)，坐标30.07 N 120.49 E，有救援人员120人，需进入灾区进行救援。

#温城(物资中心)，坐标28.37 N, 121.38 E，有救援物资12000kg,2台重量为2吨的救援装备。

#诸暨(安置点)，坐标29.70 N 120.24 E。

#宁海(安置点),坐标29.28 N, 121.41 E，需要运入救援人员40人。(\*\*\*级)

#磐安，坐标29.05 N,120.45 E，需要运入物资8000kg(\*\*\*级)，并且需要运入救援人员80人。(\*\*\*\*级)

#缙云，坐标28.65 N,120.09 E，附近湖泊发生圩堤溃堤险情，需要运入重量为10吨的大型设备2台（\*\*\*级)，并紧急转移120名灾民到安置点。（\*\*\*\*级)

#乐清，坐标28.11 N 120.97 E，需要运入物资4000kg(\*\*\*级），并且运出3名急重患者至杭州市浙江大学医学院附属第二医院滨江院区，坐标30.28 N 120.15 E（\*\*\*\*\*级）。

#天台．坐标29.13 N 121.00 E.附近有大片森林．因雷击引发森林火灾，需要进行灭火，先侦查灾情(\*\*\*\*级)，预估灭火面积20000m2,需要40吨水扑灭（\*\*\*\*级）。

初始资金6亿元。

# 推演过程

|  |  |
| --- | --- |
| 25.104081025136793 | 9-MI171前往温城(物资中心)1506.2448615082076 |
| 29.454081025136794 | 9-MI171WuZiNeed温城(物资中心)5801767.2448615082076 |
| 41.839600827155905 | 9-MI171前往乐清2510.3760496293544 |
| 46.18960082715591 | 9-MI171WuZiNeed乐清5802771.3760496293544 |
| 62.66563764065019 | 9-MI171前往基地台州机场3759.9382584390114 |
| 82.66563764065019 | 9-MI171基地保障台州机场20分钟4959.938258439011 |
| 139.81221879022004 | 9-MI171前往基地杭州机场8388.733127413203 |
| 159.81221879022004 | 9-MI171基地保障杭州机场20分钟9588.733127413203 |
| 186.13228748148785 | 9-MI171前往基地义乌机场11167.937248889271 |
| 206.13228748148785 | 9-MI171基地保障义乌机场20分钟12367.937248889271 |
| 211.81563592069995 | 9-MI171前往东阳(水源)12708.938155241996 |
| 226.81563592069995 | 9-MI171FireNum东阳(水源)313608.938155241996 |
| 245.44750532604476 | 9-MI171前往天台14726.850319562685 |
| 260.44750532604473 | 9-MI171FireNum天台315626.850319562685 |
| 279.56226350075275 | 9-MI171前往基地台州机场16773.735810045164 |
| 299.56226350075275 | 9-MI171基地保障台州机场20分钟17973.735810045164 |
| 356.70884465032253 | 9-MI171前往基地杭州机场21402.530679019354 |
| 376.70884465032253 | 9-MI171基地保障杭州机场20分钟22602.530679019354 |
| 403.02891334159034 | 9-MI171前往基地义乌机场24181.734800495422 |
| 423.02891334159034 | 9-MI171基地保障义乌机场20分钟25381.734800495422 |
| 72.25037382880627 | 3-H155前往温城(物资中心)4335.022429728377 |
| 90.45037382880628 | 3-H155WuZiNeed温城(物资中心)18205427.022429728377 |
| 101.06653365910837 | 3-H155前往乐清6063.992019546502 |
| 119.26653365910836 | 3-H155WuZiNeed乐清18207155.992019546502 |
| 133.38885092781774 | 3-H155前往基地台州机场8003.331055669065 |
| 153.38885092781774 | 3-H155基地保障台州机场20分钟9203.331055669065 |
| 181.3455911498104 | 3-H155前往缙云10880.735468988623 |
| 194.3455911498104 | 3-H155ToTransZaiMin缙云1311660.735468988623 |
| 219.5865595153053 | 3-H155前往诸暨(安置点)13175.193570918318 |
| 232.5865595153053 | 3-H155ToTransZaiMin诸暨(安置点)1313955.193570918318 |
| 257.82752788080023 | 3-H155前往缙云15469.651672848013 |
| 270.82752788080023 | 3-H155ToTransZaiMin缙云1316249.651672848013 |
| 296.0684962462952 | 3-H155前往诸暨(安置点)17764.10977477771 |
| 309.0684962462952 | 3-H155ToTransZaiMin诸暨(安置点)1318544.10977477771 |
| 50.81845378802339 | 8-H135前往缙云3049.1072272814035 |
| 52.81845378802339 | 8-H135ToTransZaiMin缙云23169.1072272814035 |
| 87.41164674962687 | 8-H135前往宁海(安置点)5244.698804977612 |
| 89.41164674962687 | 8-H135ToTransZaiMin宁海(安置点)25364.698804977612 |
| 121.8086029648737 | 8-H135前往乐清7308.516177892422 |
| 131.8086029648737 | 8-H135ToTransShangYuan乐清27908.516177892422 |
| 184.51544788185055 | 8-H135前往柯桥(集结地)11070.926872911034 |
| 194.51544788185055 | 8-H135ToTransShangYuan柯桥(集结地)211670.926872911034 |
| 247.2222927988274 | 8-H135前往乐清14833.337567929644 |
| 252.2222927988274 | 8-H135ToTransShangYuan乐清115133.337567929644 |
| 304.92913771580425 | 8-H135前往柯桥(集结地)18295.748262948255 |
| 309.92913771580425 | 8-H135ToTransShangYuan柯桥(集结地)118595.748262948255 |
| 65.84344733008966 | 5-AC313\_YL前往柯桥(集结地)3950.60683980538 |
| 80.09344733008966 | 5-AC313\_YLJiuYuanMemberNeed柯桥(集结地)194805.606839805379 |
| 109.99914839633907 | 5-AC313\_YL前往宁海(安置点)6599.948903780344 |
| 124.24914839633907 | 5-AC313\_YLJiuYuanMemberNeed宁海(安置点)197454.948903780344 |
| 143.6760177262086 | 5-AC313\_YL前往基地台州机场8620.561063572517 |
| 163.6760177262086 | 5-AC313\_YL基地保障台州机场20分钟9820.561063572517 |
| 209.5194650562983 | 5-AC313\_YL前往柯桥(集结地)12571.167903377896 |
| 223.7694650562983 | 5-AC313\_YLJiuYuanMemberNeed柯桥(集结地)1913426.167903377896 |
| 250.9276924887817 | 5-AC313\_YL前往磐安15055.661549326902 |
| 265.1776924887817 | 5-AC313\_YLJiuYuanMemberNeed磐安1915910.661549326902 |
| 278.7312969453989 | 5-AC313\_YL前往缙云16723.877816723936 |
| 282.4812969453989 | 5-AC313\_YLToTransZaiMin缙云516948.877816723936 |
| 310.6385524925646 | 5-AC313\_YL前往诸暨(安置点)18638.313149553876 |
| 314.3885524925646 | 5-AC313\_YLToTransZaiMin诸暨(安置点)518863.313149553876 |
| 74.1855728595028 | 4-AC312前往温城(物资中心)4451.134371570168 |
| 90.1855728595028 | 4-AC312WuZiNeed温城(物资中心)16005411.134371570168 |
| 101.19492379463091 | 4-AC312前往乐清6071.695427677854 |
| 117.19492379463091 | 4-AC312WuZiNeed乐清16007031.695427677854 |
| 166.77840012393506 | 4-AC312前往柯桥(集结地)10006.704007436103 |
| 178.77840012393506 | 4-AC312JiuYuanMemberNeed柯桥(集结地)1210726.704007436103 |
| 204.02549303339185 | 4-AC312前往磐安12241.529582003512 |
| 216.02549303339185 | 4-AC312JiuYuanMemberNeed磐安1212961.529582003512 |
| 227.58960296450422 | 4-AC312前往基地义乌机场13655.376177870254 |
| 247.58960296450422 | 4-AC312基地保障义乌机场20分钟14855.376177870254 |
| 264.70788916082876 | 4-AC312前往缙云15882.473349649727 |
| 276.7078891608288 | 4-AC312ToTransZaiMin缙云1216602.47334964973 |
| 302.8837082065273 | 4-AC312前往诸暨(安置点)18173.022492391636 |
| 314.8837082065273 | 4-AC312ToTransZaiMin诸暨(安置点)1218893.022492391636 |
| 54.705846063857486 | 7-Bell429前往天台3282.350763831449 |
| 99.50584606385749 | 7-Bell429ZCArea天台1605970.3507638314495 |
| 123.12829073586887 | 7-Bell429前往缙云7387.697444152132 |
| 129.1282907358689 | 7-Bell429ToTransZaiMin缙云67747.697444152132 |
| 156.00080458506497 | 7-Bell429前往诸暨(安置点)9360.048275103898 |
| 162.00080458506497 | 7-Bell429ToTransZaiMin诸暨(安置点)69720.048275103898 |
| 172.89105091104818 | 7-Bell429前往柯桥(集结地)10373.46305466289 |
| 178.89105091104818 | 7-Bell429JiuYuanMemberNeed柯桥(集结地)610733.46305466289 |
| 204.81011967741065 | 7-Bell429前往磐安12288.60718064464 |
| 210.81011967741065 | 7-Bell429JiuYuanMemberNeed磐安612648.60718064464 |
| 235.85478927319252 | 7-Bell429前往基地台州机场14151.287356391551 |
| 255.85478927319252 | 7-Bell429基地保障台州机场20分钟15351.287356391551 |
| 285.6186191673292 | 7-Bell429前往缙云17137.11715003975 |
| 291.6186191673292 | 7-Bell429ToTransZaiMin缙云617497.11715003975 |
| 325.0280146511592 | 7-Bell429前往宁海(安置点)19501.68087906955 |
| 331.0280146511592 | 7-Bell429ToTransZaiMin宁海(安置点)619861.68087906955 |
| 67.94460533271878 | 6-AC311前往柯桥(集结地)4076.6763199631264 |
| 71.94460533271877 | 6-AC311JiuYuanMemberNeed柯桥(集结地)44316.676319963126 |
| 103.2209843645046 | 6-AC311前往宁海(安置点)6193.259061870276 |
| 107.2209843645046 | 6-AC311JiuYuanMemberNeed宁海(安置点)46433.259061870276 |
| 143.83211358220163 | 6-AC311前往缙云8629.926814932098 |
| 147.83211358220163 | 6-AC311ToTransZaiMin缙云48869.926814932098 |
| 177.27991000861235 | 6-AC311前往诸暨(安置点)10636.794600516741 |
| 181.27991000861235 | 6-AC311ToTransZaiMin诸暨(安置点)410876.794600516741 |
| 210.7277064350231 | 6-AC311前往缙云12643.662386101385 |
| 214.7277064350231 | 6-AC311ToTransZaiMin缙云412883.662386101385 |
| 244.1755028614338 | 6-AC311前往诸暨(安置点)14650.530171686029 |
| 248.1755028614338 | 6-AC311ToTransZaiMin诸暨(安置点)414890.530171686029 |
| 259.4110937967227 | 6-AC311前往基地义乌机场15564.665627803362 |
| 279.4110937967227 | 6-AC311基地保障义乌机场20分钟16764.665627803362 |
| 298.6691657675878 | 6-AC311前往缙云17920.14994605527 |
| 302.6691657675878 | 6-AC311ToTransZaiMin缙云418160.14994605527 |
| 332.1169621939986 | 6-AC311前往诸暨(安置点)19927.017731639913 |
| 336.1169621939986 | 6-AC311ToTransZaiMin诸暨(安置点)420167.017731639913 |
| 40.13884789333474 | 10-H225前往柯桥(集结地)2408.3308736000845 |
| 43.13884789333474 | 10-H225JiuYuanMemberNeed柯桥(集结地)42588.3308736000845 |
| 70.33569922532243 | 10-H225前往宁海(安置点)4220.141953519345 |
| 73.33569922532243 | 10-H225JiuYuanMemberNeed宁海(安置点)44400.141953519345 |
| 97.82340354732439 | 10-H225前往东阳(水源)5869.404212839463 |
| 112.82340354732439 | 10-H225FireNum东阳(水源)46769.404212839463 |
| 129.02502911718943 | 10-H225前往天台7741.501747031366 |
| 144.0250291171894 | 10-H225FireNum天台48641.501747031365 |
| 166.534822409722 | 10-H225前往缙云9992.08934458332 |
| 180.784822409722 | 10-H225ToTransZaiMin缙云1910847.08934458332 |
| 206.39160191094874 | 10-H225前往诸暨(安置点)12383.496114656924 |
| 220.64160191094874 | 10-H225ToTransZaiMin诸暨(安置点)1913238.496114656924 |
| 258.0143516733247 | 10-H225前往基地台州机场15480.861100399483 |
| 278.0143516733247 | 10-H225基地保障台州机场20分钟16680.86110039948 |
| 306.37626204346213 | 10-H225前往缙云18382.57572260773 |
| 320.62626204346213 | 10-H225ToTransZaiMin缙云1919237.57572260773 |
| 352.46202658058996 | 10-H225前往宁海(安置点)21147.7215948354 |
| 366.71202658058996 | 10-H225ToTransZaiMin宁海(安置点)1922002.7215948354 |
| 391.1997309025919 | 10-H225前往东阳(水源)23471.983854155515 |
| 406.1997309025919 | 10-H225FireNum东阳(水源)424371.983854155515 |
| 422.401356472457 | 10-H225前往天台25344.08138834742 |
| 437.401356472457 | 10-H225FireNum天台426244.08138834742 |
| 453.602982042322 | 10-H225前往东阳(水源)27216.178922539322 |
| 468.602982042322 | 10-H225FireNum东阳(水源)428116.178922539322 |
| 484.8046076121871 | 10-H225前往天台29088.276456731226 |
| 499.8046076121871 | 10-H225FireNum天台429988.276456731226 |
| 60.05759610079442 | 1-M-26前往温城(物资中心)3603.4557660476653 |
| 100.05759610079443 | 1-M-26WuZiNeed温城(物资中心)80006003.455766047666 |
| 127.87254761183674 | 1-M-26前往磐安7672.352856710204 |
| 167.87254761183672 | 1-M-26WuZiNeed磐安800010072.352856710204 |
| 200.8052578338214 | 1-M-26前往基地杭州机场12048.315470029283 |
| 220.8052578338214 | 1-M-26基地保障杭州机场20分钟13248.315470029283 |
| 230.26711962801284 | 1-M-26前往柯桥(集结地)13816.02717768077 |
| 251.76711962801284 | 1-M-26JiuYuanMemberNeed柯桥(集结地)4315106.02717768077 |
| 278.4993356497906 | 1-M-26前往磐安16709.960138987437 |
| 299.9993356497906 | 1-M-26JiuYuanMemberNeed磐安4317999.960138987437 |
| 327.81428716083286 | 1-M-26前往温城(物资中心)19668.857229649973 |
| 347.81428716083286 | 1-M-26SheBeiNeed温城(物资中心)120868.857229649973 |
| 378.39776958907856 | 1-M-26前往缙云22703.866175344712 |
| 398.39776958907856 | 1-M-26SheBeiNeed缙云123903.866175344712 |
| 416.5230137969516 | 1-M-26前往基地义乌机场24991.380827817095 |
| 436.5230137969516 | 1-M-26基地保障义乌机场20分钟26191.380827817095 |
| 441.87204762209234 | 1-M-26前往东阳(水源)26512.32285732554 |
| 456.87204762209234 | 1-M-26FireNum东阳(水源)1527412.32285732554 |
| 474.4079247094757 | 1-M-26前往天台28464.47548256854 |
| 489.4079247094757 | 1-M-26FireNum天台1529364.47548256854 |
| 506.943801796859 | 1-M-26前往东阳(水源)30416.628107811543 |
| 521.943801796859 | 1-M-26FireNum东阳(水源)1531316.628107811543 |
| 539.4796788842424 | 1-M-26前往天台32368.780733054544 |
| 554.4796788842425 | 1-M-26FireNum天台1533268.78073305455 |
| 576.2148261205515 | 1-M-26前往温城(物资中心)34572.88956723309 |
| 596.2148261205515 | 1-M-26SheBeiNeed温城(物资中心)135772.88956723309 |
| 626.7983085487972 | 1-M-26前往缙云37607.89851292783 |
| 646.7983085487972 | 1-M-26SheBeiNeed缙云138807.89851292783 |
| 62.77585605893125 | 2-S76前往柯桥(集结地)3766.5513635358748 |
| 75.77585605893124 | 2-S76JiuYuanMemberNeed柯桥(集结地)134546.551363535875 |
| 103.6804321467699 | 2-S76前往宁海(安置点)6220.8259288061945 |
| 116.6804321467699 | 2-S76JiuYuanMemberNeed宁海(安置点)137000.8259288061945 |
| 153.47434770374167 | 2-S76前往基地杭州机场9208.4608622245 |
| 173.47434770374167 | 2-S76基地保障杭州机场20分钟10408.4608622245 |
| 213.9674152630328 | 2-S76前往缙云12838.044915781968 |
| 226.9674152630328 | 2-S76ToTransZaiMin缙云1313618.044915781968 |
| 259.6316197695283 | 2-S76前往宁海(安置点)15577.897186171696 |
| 272.6316197695283 | 2-S76ToTransZaiMin宁海(安置点)1316357.897186171696 |
| 290.75854988773364 | 2-S76前往基地台州机场17445.51299326402 |
| 310.75854988773364 | 2-S76基地保障台州机场20分钟18645.51299326402 |
| 346.7708261187633 | 2-S76前往基地义乌机场20806.249567125797 |
| 366.7708261187633 | 2-S76基地保障义乌机场20分钟22006.249567125797 |
| 371.84147156638744 | 2-S76前往东阳(水源)22310.488293983246 |
| 386.84147156638744 | 2-S76FireNum东阳(水源)223210.488293983246 |
| 403.46470077561696 | 2-S76前往天台24207.88204653702 |
| 418.46470077561696 | 2-S76FireNum天台225107.88204653702 |
| 435.08792998484654 | 2-S76前往东阳(水源)26105.275799090792 |
| 450.08792998484654 | 2-S76FireNum东阳(水源)227005.275799090792 |
| 466.71115919407606 | 2-S76前往天台28002.669551644565 |
| 481.71115919407606 | 2-S76FireNum天台228902.669551644565 |
| 498.7652185321055 | 2-S76前往基地台州机场29925.91311192633 |
| 518.7652185321055 | 2-S76基地保障台州机场20分钟31125.91311192633 |
| 554.7774947631351 | 2-S76前往基地义乌机场33286.64968578811 |
| 574.7774947631351 | 2-S76基地保障义乌机场20分钟34486.64968578811 |