

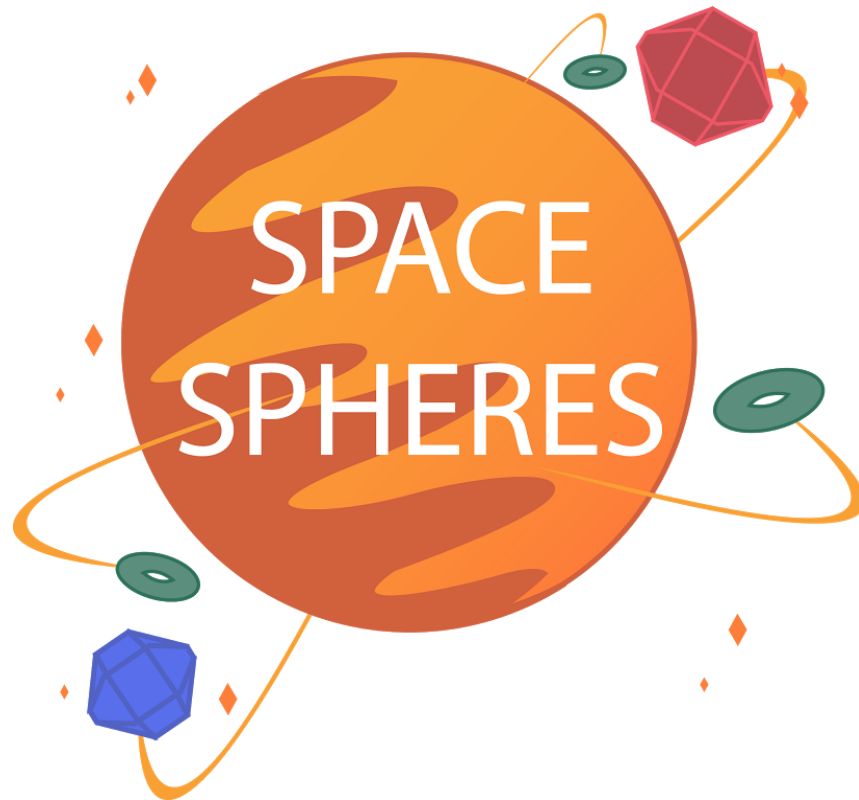
# ZERO ROBOTICS

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HS TOURNAMENT 2016

## Game Manual

Ver. 3.1.1



**SPACE-S (Satellite Positioning and Constructing Entities -  
SPHERES)**



# Table of Contents

## 1. Game Overview

[Figure 1: Game Overview \(with x,y coordinates for alliance added, purple special item and Docking Adapters \(DA\) are added for alliance\)](#)

### 1.1 Overview of Game Features

[1.1.1 Satellite Positioning System \(SPS\) Items](#)

[1.1.2 Assembly Zones](#)

[Figure 2: SPS and Assembly Zones \(with x,y coordinates for alliance added\)](#)

[1.1.3 Satellite Piece Items](#)

[1.1.4 Locations of Items and SPACE-S](#)

[1.1.5 Docking](#)

[1.1.6 Docking Adapters](#)

[1.1.7 Special Item](#)

### 1.2 Game Layout

[Table 1: Interaction Zone Dimensions](#)

[Figure 3: Interaction Zones \(with x,y coordinates for alliance added\)](#)

[2D Phase](#)

[3D Phase](#)

### 1.3 Satellite

[1.3.1 ZR User API](#)

[Table 2: SPACE-SPHERES API Reference](#)

[1.3.2 Fuel](#)

[Table 3: Fuel Allocation](#)

[1.3.3 Inter-satellite Communications](#)

[Table 4: Inter-satellite communications bandwidth](#)

[1.3.4 Code Size](#)

[1.3.5 Initial Position](#)

[Table 5: Initial Positions](#)

[1.3.6 Player ID](#)

[1.3.7 Noise](#)

### 1.4 Gameplay

[1.4.1 Satellite Positioning System](#)

[Table 6: Accelerating Rates with SPS items](#)

[1.4.2 Docking](#)

[Figure 4: SPHERES points and docks with its -x face](#)

[Table 7: Item Pickup Distances \(meters from center of item\)](#)

[Figure 4: Docking Satellite Items \(with x,y coordinates for alliance added\)](#)

[1.4.3 Items](#)

**SPACE-SPHERES**; Ua Y'A Ubi U''

[1.4.3.1 Item Types and Locations](#)

[Table 8: Item IDs and Location](#)

[1.4.3.2 Point Values/Acceleration/ Inertia of the Items](#)

[Table 9: Size and Mass of Items compared to a SPHERES](#)

[Table 10: Satellite Item Dimensions \(Length of a single face = 2\\* radius\)](#)

[Table 11: Acceleration Rates for SPACE-S with different Items](#)

[1.4.3.3 Other Item Details](#)

[Figure 5: Diagonal Symmetry \(with x,y coordinates for alliance added\)](#)

[Figure 6: Diagonal Symmetry in Alliance Game](#)

[1.4.4 Scoring Summary](#)

[Table 12 : Point Values](#)

[1.4.5 Penalties](#)

[Table 13: Penalties](#)

[1.4.6 End of game](#)

[2. Tournament](#)

[Table 14: Tournament Key Dates](#)

[2.1 The Leaderboard](#)

[2.1.1 Introduction](#)

[2.1.2 Playing Matches](#)

[2.1.3 Standard play](#)

[2.1.4 Initial submission rule](#)

[2.1.5 Last day of the competition](#)

[2.1.6 Calculating Ratings](#)

[2.1.7 Summary](#)

[2.2 2D Practice Simulation Competition](#)

[2.3 3D Simulation Competition](#)

[2.4 Alliance Formation Event](#)

[Figure 7: Division of Teams for the Drafts](#)

[Figure 8: Alliance Creation Process demonstrated for teams with odd number rankings](#)

[2.5 Wild Cards Explained- Reserved](#)

[2.6 Semifinal Simulation Competition](#)

[2.7 ISS Final Competition](#)

[2.7.1 Overview and Objectives](#)

[2.7.2 Competition Format](#)

[Figure 9: Division of Teams between Conferences](#)

[Figure 10 : ISS Competition Bracket](#)

[2.7.3 Scoring Matches](#)

[2.8 Virtual Finals Simulation Competition](#)

3. Season Rules

3.1 Tournament Rules

3.2 Ethics Code

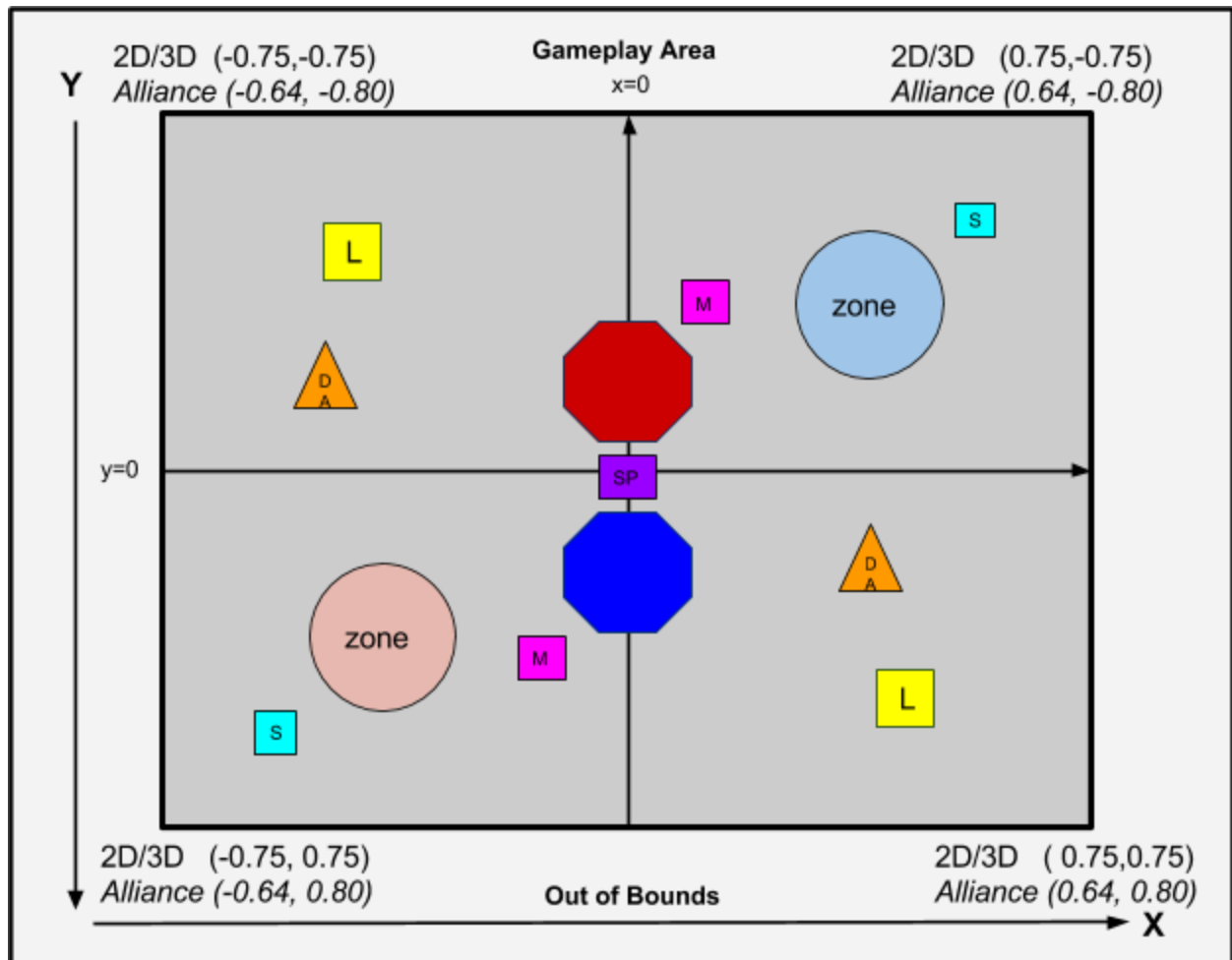
4. Revision History

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# ZRHS 2016 Game Manual

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S: Small, M: Medium, L: Large, SP: Special, DA: Docking Adapter

Diagram not to scale

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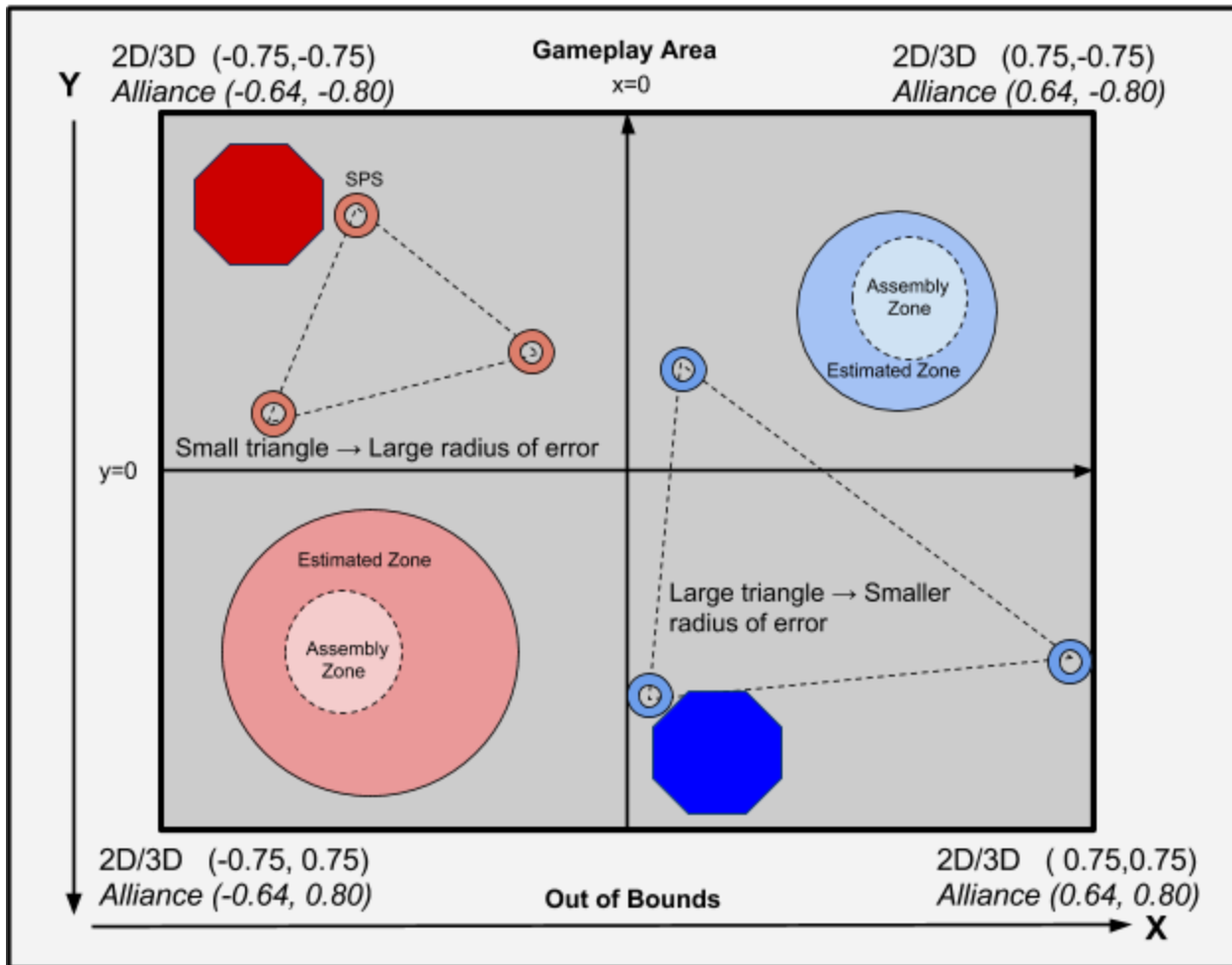


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3066'Nqecvqpu'qh'Kgo u'cpf 'URCEG/U'

Vj g'iqecvqpu'qh'ucvgnkg'kgo u.'cpf 'y g'qr r qpgpv'URCEG/U'ctg'tgxcngf 'v'j g'vgo u'Vgco u'gpvt 'y g' ur gekhgf 'kgo 'Kf au'f guetkdgf 'kp'ugevqp'3066+'cpf 'wug'vj g'hwpevqp''{ ~->äÄ&æ\Ø\æ↑Q~´ Çâ->~á\ Ä \*~bYÿÊÄ↔^ \Ä↔\æ↑ØEDÄ 'v'i g'v'j g'iqecvqpu'qh'j g'kgo 0C'URCEG/U'ecp'o qxg'cp{y j gtg'qp'y g'o cr '' cpf 'j cxg'hkzgf 'kp'kknir qukvqpu'f guetkdgf 'kp'ugevqp'3066+0'

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[ "jo _"	]207"z- 207_"	]207"z- 207_"	]202"z- 202_"
\ ]o _"	20"	]207"z- 207_"	]2086"z- 2086_"

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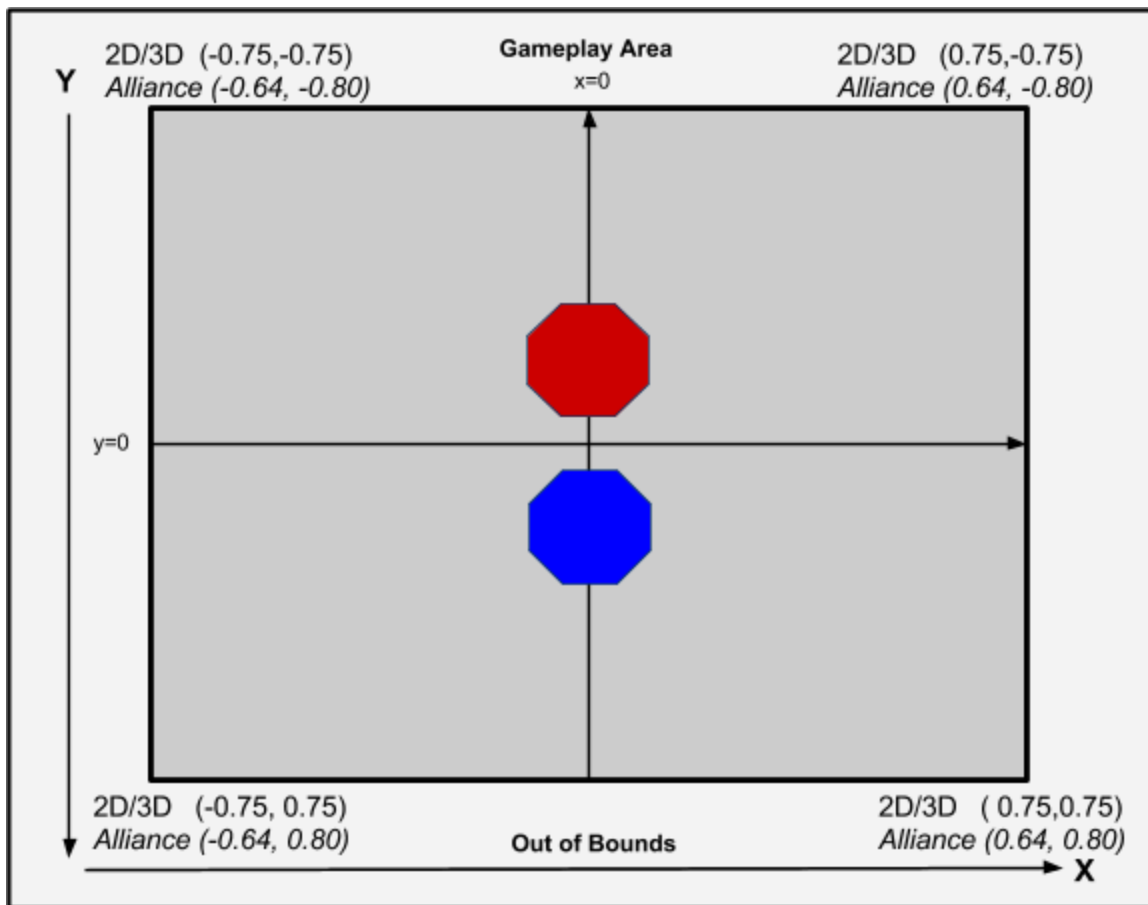


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SPACE-SPHERES; Ua Y'A Ubi U''

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"

Alliance Phase

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- Vj g'cnk'peg'i co g'cf f u'y q'pgy 'kgo 'v' r gu.'F qemkpi 'Cf cr vgtu'cpf 'c'Ur gekn'kgo .'cu'f guetk'dgf " gctn'kt'kp'ugev'kqp'3068'cpf'3060C'URCEG/U'y knidg'cy ctf gf 'dqpwu'r qkpw'hqt'r kenkpi 'wr 'y g' Ur gekn'kgo 0Tgcf 'o qtg'cdqw'y j g'y q'pgy 'kgo 'v' r gu'kp'ugev'kqp'3065"
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305 "Ucv'gnk'g"

Gcej 'vgo 'y kn'y tkv'g'y g'uq'hw' ctg'v'q'eqo o cpf 'c'URJ GTGU'ucv'gnk'g'v'q'o qxg'kp'qtf gt'v'q'eqo r ngv'y j g" i co g'cum'0C'URJ GTGU'ucv'gnk'g'ecp'o qxg'kp'cm'f ktg'ev'kqp'u'wukpi 'ku'y gnx'g'y j tw'vgtu'0Vj g'cewcn' URJ GTGU'ucv'gnk'g.'hkn'g'cp' { 'qy gt'ur ceget'chw'j cu'c'hwgn'u'qwt'eg' \*kp'y ku'ecug'hts w'f 'ectdqp'f kqz'kf g'+cpf 'c" r qy gt'uqwt'eg' \*kp'y ku'ecug'CC'dcwtg' { 'r cem'u'0Vj gug't'guqwt'egu'ctg'ht'o k'gf 'cpf 'o wuv'dg'wug'f 'y kugn' 0' Vj gtgh'q'g.'y g'r r { 'gtu'qh'\ gtq'Tqdq'v'ku'ctg'ht'o k'gf 'kp'y g'wug'q'ht'g'cn'hwgn'cpf 'dcwtg'k'gu'd' { 'xk'wcn'ht'o ku" y kj kp'y g'i co g0Vj ku'ugev'kqp'f guetk'dgu'y g'ht'o ku'v'q'y j kej 'r r { 'gtu'o wuv'cf j gtg'v'q'y kugn' 'wug't'g'cn' URJ GTGU't'guqwt'egu'0"

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Hqt "gzco r ng=cr k'ng'Rqu'k'k'qp'Vcti gv'ht'q'cv'r qu'Vcti gv'5\_+ " " " "



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dqqnj cuCf cr vgt *+ "	T gwtpu'tvg'h'y g'r n { gt 'ku'j qif kpi 'cv'gcu'v'p'g'f qenki 'cf cr vgt=" hcnug'qy gty kug0'
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dqqn'f qenKgo *kpvkgo K +"	T gwtpu'tvg'h'h' n { gt 'r lemi'wr 'ur gekhle'kgo 'uweeguuhwn' " Y kni'qpn' 'cvgo r v'v'q'f qeniy kj 'kgo K 'ur gekhgf " B r ctco 'kgo K 'Vj g'lpvgi gt 'kf gpv'kgt 'qh'c'i kxgp'kgo 0'
xqkf 'f tqr Kgo *+ "	F tqr u'y g'kgo 'y cv'y g'ur j gt g'ku'ewtgpvn' 'j qif kpi "
kpvi gvP wo Kgo *+ "	T gwtpu'y g'pwo dgt 'qh'v'q'cnkgo u'lp'r n { . 'y j gvj gt 'y j g' 'j c'xg' dggp'r lengf 'wr " { gv'qt'pqv0"
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dqqn'kgo K\ qpg'kpv'kgo K +"	T gwtpu'y j gvj gt 'y j g'ur gekhgf 'kgo 'ku'r m'egf 'kp' { qwt' } qpg0' T gwtpu'hcnug'h'y g'kgo 'ku'd'gkpi 'j grf 'qt'ku'pqv'lp'y g' } qpg0'
kpvj cuKgo *kpv'kgo K +"	Vgmi'y j q'j cu'c'i kxgp'kgo 0' B r ctco 'kgo K 'Vj g'lpvgi gt 'kf gpv'kgt 'qh'c'i kxgp'kgo 0' 't'gwtp'2' 'k'hp'q'qpg'j cu'r lengf 'wr 'y j g'ur gekhgf 'kgo . '3'k' { qw' j c'xg'r lengf 'wr 'kgo . 'qt'4'k' { qw'qr r qpg'pv'j cu'r lengf 'wr 'y j g' kgo 0'
kpvi g'kgo V { r g'kpv'kgo K +"	T gwtpu'y j cv'y g'kgo 'v { r g'ku0' Rquidng'kgo 'V { r gu< " " " " " KGO aV  RGa NCTI G' " " " " KGO aV  RGa O GF KWO " " " " KGO aV  RGa UO CNN" " " " KGO aV  RGa URGE ICN" " " " KGO aV  RGa CF CRVGT " " B r ctco 'kgo K 'Vj g'lpvgi gt 'kf gpv'kgt 'qh'c'i kxgp'kgo 0' "t'gwtp'y g'eqttgur qpf kpi 'kgo 'v { r g'v'q'y g'i kxgp'kf gpv'kgt 0'
xqkf 'f tqr URU *+ "	F tqr u'URU'kgo u"
hqcvi gvUeqtg *+ "	T gwtpu'r n { gt a'ueqtg"
hqcvi gvQvj gtUeqtg *+ "	T gwtpu'qr r qpg'pv'a'ueqtg"
hqcvi gvHvgn' go cl'kpi *+ "	T gwtpu'tgo cl'kpi 'h'vgn'
kpvi g'ewtgp'wlo g *+ "	T gwtpu'y g'wlo g'lp'y g'i co g"
xqkf 'ugpf O guuci g'wpuki pgf 'ej ct' l'pr wO ui + "	Ugpf u'inputMsg v'q'y gt 'ucv'knkg"
wpuki pgf 'ej ct' t'gegkxGO guuci g *+ "	T gwtpu'y g'o quv't'gegp'v'o guuci g'ug'pv'd { 'q'y gt 'ucv'knkg"



**SPACE-SPHERES**; Ua Y'A Ubi U''

lpvfi gP wo URUJ grf *+ "	Tgwtpu'vj g'pwo dgt'qh'URUu'lnknj grf 'd { 'y g'urj gte "
dqqrni gv\ ppg*hnvc\  ppgkphq]6_+ "	K'cmir u'j cxg'dggp'r rcegf . 'tgwtpu'twg'cpf 'lvtgu'c'   ppg' guko cvkp'lp'   ppgkphq0Qvj gty kug'tgwtpu'lcng0Ecp'qpn\ 'dg' ecmgf 'qpeg'r gt'ugeqpf 0*fp'5F 'y g'uco g'xcnngu'ctg'tgwtpgf 'gcej " vko g'y g'hwpvkvq'ku'ecmgf + "
dqqrnj cuKgo DggpRlengf Wr *lpvkggo Kf + "	Tgwtpu'twg'h'kgo Kf 'j cu'dggp'r lengf 'wr 'cv'ugo g'r qlp0Tgwtpu' lcng'qy gty kug0 r r "

30504 "Hwgrn'

Gcej 'r r { gt 'ku'cuuki pgf "c'xkt wcn'hwgrn'cmqecvkvq"qh'82'ugeqpf u.'y j lej 'ku'vj g'vqcn'luwo "qh'hwgrn'wugf 'kp" ugeqpf u'qh'lpf kxkf wcn'vj twugt 'hk'kpi 0Qpeg'vj g'cmqecvkvq'ku'equwo gf . 'y g'ucvgnksg'y knlpqv'dg'cdrg'vq" tgr qpf "vq'URJ GTGU'eqpvtqr'eqo o cpf u0K'y kn'ht'g'vj twugtu'qpn\ 'vq'cxqkf 'rgcxkpi 'y g'k'pvtcevkvq'\ ppg" qt'eqnkf kpi 'y kj 'y g'qy gt'ucvgnksg0Cp { 'cevkvq'vj cv'tgs vktgu'ht'kpi 'y g'vj twugtu'uwej 'cu'tqvckpi . "

ceegrtecvkpi "qt'o qxkpi "equwo gu'hwgrn'

Vcdrg"5<'Hwgrn'cmqecvkvq"

	2D	3D	Alliance
Hwgrn'cmqecvkvq"]u_ "	82u"	82u"	82u"

30505 "K'pvtg/ucvgnksg'Ego o wplecvkvqpu"

Vj g'ucvgnksgu'j cxg'vj g'cdkxv\ 'vq'eqo o wplecvkvq'y kj 'gcej 'qy gt'wukpi 'dkpct { "o guuci gu0Vj g'CRK'hwpvkvqpu" ugpf O guuci g'cpf 'tgegkxgO guuci g'o c { 'dg'wugf 'vq'ugpf 'f cv' "dgvy ggp'vj g'ucvgnksgu0Vj g'dcpf y kf vj " cxk'cdrg'vq'vj g'ucvgnksgu'ku'cu'hqmqy u<\*cf f kpi 'hwpvkvq'ht'eqqr gtecvkvq+ "

Vcdrg"6<'K'pvtg/ucvgnksg'eqo o wplecvkvqpu'dcpf y kf vj "

	2D	3D	Alliance
O guuci g'uk' g"	Wpuki pgf "ej ct"	Wpuki pgf "ej ct"	Wpuki pgf "ej ct"

30506 "Eqf g'Uk' g"

C'URJ GTGU'ucvgnksg'ecp'h'k'c'hko kvgf 'co qwpv'qh'eqf g'lp'ku'o go qt { 0Gcej 'r tqlgv'j cu'c'ur gek'le'eqf g'uk' g" cmqecvkvq0Y j gp" { qw'eqo r krg" { qwt'r tqlgv'y kj "c"eqf g'uk' g" guko cvg."y g'eqo r krgt "y kn'r tqxkf g'vj g" r gtegpvcu g'qh'vj g'eqf g'uk' g'cmqecvkvq'vj cv\ { qwt'r tqlgv'ku'wukpi 0Hqto cn'eqo r gvkvkvq'lwdo kuukpu'tgs vktg" vj cv\ { qwt'eqf g'uk' g'dg'322' "qt'rguu'qh'vj g'vqcn'cmqecvkvq0"

30507 "K'pvtg'cn'Rqukvkvq"

Vj g'Dnwg'Urj gtg'lvctw'cv'vj g'Z.' [ .\ 'qh']20.'2087.'200\_0Vj g'Tgf "Urj gtg'lvctw'cv'vj g'Z.' [ .\ 'qh' ]20./2087.'200\_0"

Vj g'ucvgnksg'tcf ku'ku'2083o . 'dw'ucvgnksg'r qukvkvq'tgr'v'xg'vq'i co g'hgcwv'gu'ku'f gvgto kpgf 'd { 'y g'hwgrn'cmqecvkvq" qh'vj g'egpvtg'qh'vj g'ucvgnksg0"



SPACE-SPHERES; Ua Y'A Ubi U''

30604'F qenki ""

F wtkpi 'y g'4F "cpf "5F "i co g."vq'f qenly kj "cp'kgo "c"URCEG/U'o wuv'cr r tqcej "cp'kgo ."pqv'dg"b' qxkpi " hcuvt'y cp'023o lu.'dg'r qkpvkpi 'cv'y g'kgo 'y kj "c"vqrgtcpeg'qh'2047'tcf kcpu"Vj g'cpi rg'dgy ggp'y g' ucvmkg'u'hcelpi 'xgevqt'cpf 'y g'xgevqt'dgy ggp'y g'egpvt'qh'y g'ucvmkg'cpf 'y g'egpvt'qh'cp' 'hceg'qh'y g' kgo 'ku'y kj kp'2047'tcf kcpu+."dg'y kj kp'c'ur gekkfg 'f kucpeg'qh'cp'kgo "cpf 'ecm'y g'ã~ ~>Äã~ ^ < -∅ \ æ ↑ ÇD " hpevkqp'vq'f qen0"ã~ ~>Äã~ ^ < -∅ \ æ ↑ ÇD tgwtpu'twg'y j gp'f qenki 'ku'uweeguuhw0'

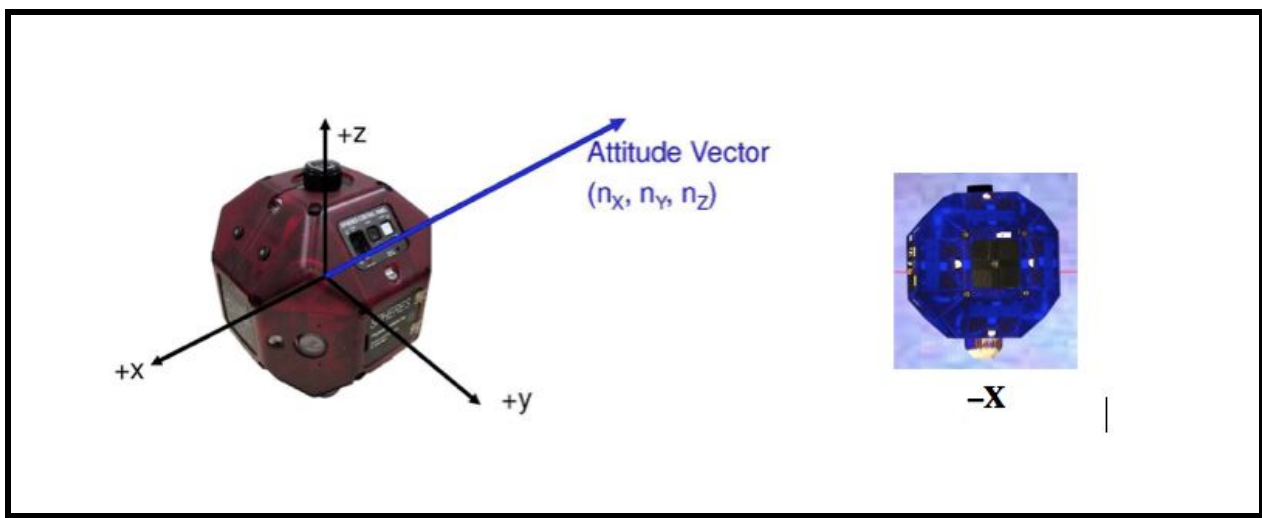
Cnkcpeg'I co g<Cp'cf f kkpncitgs wtkgo gpv'kp'y g'c'ncpcpeg'i co g'ku'y cv'y g'ucvmkg'kgo u'ecp'dg'f qengf " hqo "qpg'ukf g'qpnf . 'hqo 'y g'ör qkpvkpi 'hcegö'qh'y g'kgo 0'Vj ku'hceg'ku'o ctnmf 'y kj "c'f khtg'gp'v'eqmt'y cp' y g'tguv'qh'y g'kgo 0'Vj g'URCEG/U'pggf u'vq'f qkpv'vqy ctf u'y g'egpvt'qh'y g'kgo ai'f qenki 'r qkpvkpi 'hceg' y kj "c"vqrgtcpeg'qh'2047'tcf kcpu"Vj g'cpi rg'dgy ggp'y g'ucvmkg'u'hcelpi 'xgevqt'cpf 'y g'kgo ai'hcelpi " xgevqt'ku'y kj kp'2047'tcf kcpu0'

"URCEG/U'vgo u'pggf 'vq'ej genikh'y gk'c'wkwf gu'hceg'y g'c'wkwf gu'qh'kgo u0'Wug" { ~>ä Ä &æ \ ∅ \ æ ↑ XPU \ á \ æ Çã ~ ~> ä \ Ä \* ~ bYFGYËÄ ↔ ^ \ Ä ↔ \ æ ↑ ∅ CED " hqt'kphqto cvkqp'cdqww'kgo "c'wkwf g0' " Ñ ~ ~> Ä ↔ bÔ á ^ < ^ & O ~ ä ä æ ^ \ ∅ \ æ ↑ U ↔ ä æ Ç ↔ ^ \ Ä ↔ \ æ ↑ ∅ CED 'tgwtpu'twg'kh'y g'URCEG/U'ku'hcelpi 'y g' eqttge'v'ukf g'qh'y g'i kxgp'kgo 0'kgo Kf ai'ecp'dg'hqwpf 'kp'ugevkqp'306040"

K'ku'pqv'pgeguuct { 'vq'f qenly kj "c'f qenki 'Cf cr vgt'd { 'wukpi '&ã ↑ æ È ä ~ ^ < -∅ \ æ ↑ ÇD qt' &ã ↑ æ È ä ~ ^ < -∅ \ æ ↑ Ç ↔ ^ \ Ä ↔ \ æ ↑ ∅ CED 0F qenki 'Cf cr vgtu'ctg'r lengf 'w'r'd { 'r cuukpi 'y tqwi j 'y g'kgo "cv' ur ggf ">203o lu0'Wug'y g'hpevkqp" { ~>ä Ä &æ \ ∅ \ æ ↑ XPU \ á \ æ Çã ~ ~> ä \ Ä \* ~ bYFGYËÄ ↔ ^ \ Ä ↔ \ æ ↑ ∅ CED Ä qtÄ { ~>ä Ä &æ \ ∅ \ æ ↑ Q ~ ^ Çã ~ ~> ä \ Ä \* ~ bYÿÿËÄ ↔ ^ \ Ä ↔ \ æ ↑ ∅ CEDÄ 'vq'i gv'y g'cf cr vgt' hqecvkpu.'cpf 'wugÄ ä ~ ~> Ä ä ä bNä ä \* \ æ ä ÇDÄ vq'eqphkto 'r kenl'w0'

Vj g'URJ GTGU'f qem'y kj 'ku'pgi cvxg'z'\*/z'+hceg0'

Hki wtg'6<URJ GTGU'r qkpw'cpf 'f qem'y kj 'ku'z'hceg"



Kp'5F "cpf "Cnkcpeg."c'r gpcnq'qh'205'r qkpw'ku'lo r qugf "qp'c"URCEG/U'y cv'cwgo r w'vq'f qeni'ecm'i" ä~ ^ < -∅ \ æ ↑ ÇD 'hpevkqp'+y j krg'pqv'hwtkkpi 'y g'f qenki 'tgs wtkgo gpv0T gcf 'o qtg'cdqww'r gpcnku'kp"

SPACE-SPHERES; Ua Y'A Ubi U"

ugev\kp"306070"

"

Vcdng'9<"Kgo "Rlemw' F kvcpegu"%o gvtu'ltqo "egpvt'qh'kgo +"

Item Type	2D	3D	Alliance
Small (including Special Item)	[.124 : .146]	[.124 : .146]	[.124 : .146]
Medium	[.138 : .160]	[.138 : .160]	[.138 : .160]
Large	[.151 : .173]	[.151 : .173]	[.151 : .173]

Hki wtg'6<F qem\pi "Ucvgmk'Kgo u"y kj "z.{ 'eqqt f kpcvgu'ht'cmkpeg'cf f gf +"

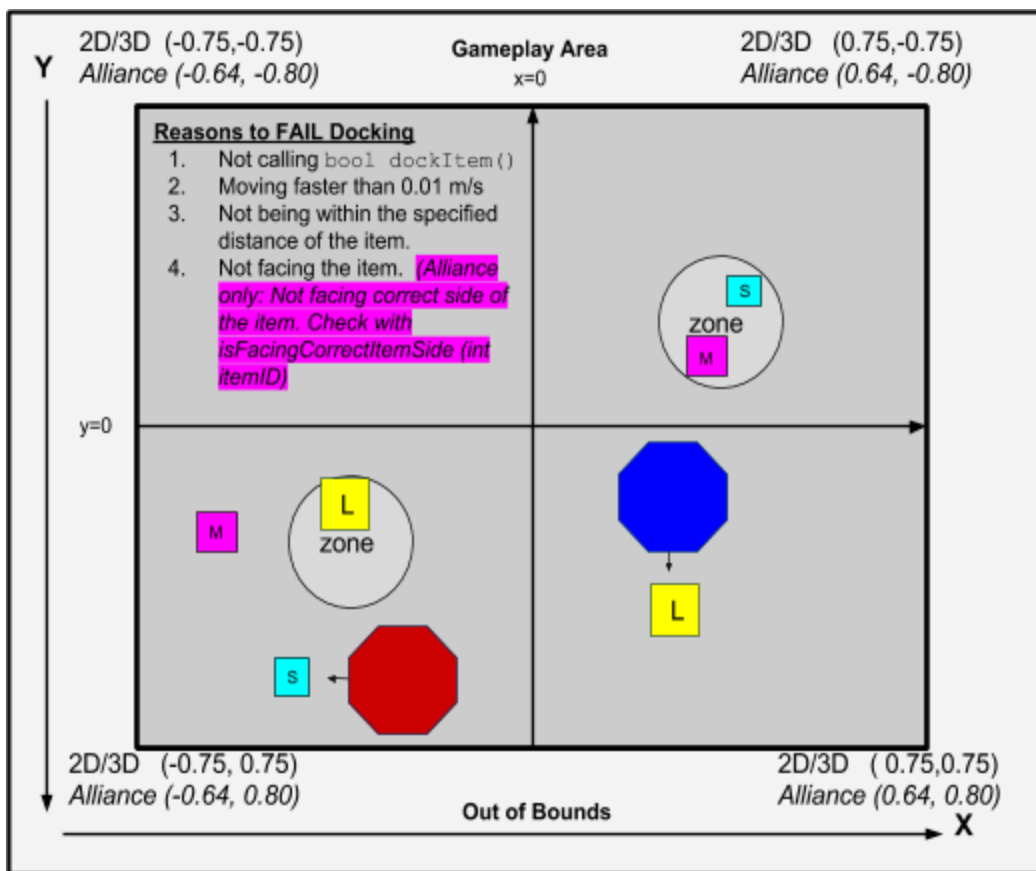


Diagram not to scale

30605"Kgo u"

30606"Kgo "V{r gu'cpf "Nqecv\kpu"

Vj gtg'ctg'ukz "Ucvgmk'kgo u"\*qh'y tgg'uk gu+"uecwgtgf "ctqwpf "j'g'lpvgtcev\kp| qpg0Gcej "j' cu'c'wpls wg"

**SPACE-SPHERES**; Ua Y'A Ubi U"

pwo gtle'kf gpwht'ltqo "2"q"P/3."y j gtg'P'ku'y g'pwo dgt'qh'kgo u0k'vj g'4F "cpf "5F "xgtukp"vj gtg'ctg'ukz" kgo u"qvcrn\*2/7+0k'vj g'cmkpeg'i co g'y q'F qenki "Cf cr vtu'cpf "qpg'Ur gekri'kgo "ctg'cf f gf "q'i kxg"; " kgo u"qvcrn\*2/: +cu'uj qy p'lp'Hki wtg'80"k'vj g'cmkpeg'i co g'dqv'vj g'r qukkap'cpf "cwkxf g'qh'kgo u"2/7" ctg'tcpf qo n' "cuuki pgf 0"

Vcdrg': <"kgo "Kf u'cpf "Nqecvkqp"

Item Number	Item Type	2D Location (X, Y)	3D Location(X,Y,Z)	Alliance Location (X,Y,Z)
0	Large	(.23, .23)	(.23, .23, .23)	Randomly assigned
1	Large	(-.23, -.23)	(-.23, -.23, -.23)	Randomly assigned
2	Medium	(.36, -.36)	(.36, -.36, .36)	Randomly assigned
3	Medium	(-.36, .36)	(-.36, .36, -.36)	Randomly assigned
4	Small	(-.50, .50)	(-.50, .50, .50)	Randomly assigned
5	Small	(.50, -.50)	(.50, -.50, -.50)	Randomly assigned
6	Special Item	N/A	N/A	(0.0, 0.0, 0.0)
7	Docking Adapter	N/A	N/A	Initial location Randomly assigned
8	Docking Adapter	N/A	N/A	

30604'Rqkpv'XcngulCeegrtckqp l'kgt'vc'qh'vj g'kgo u"

k'vj ku'i co g'ucvgnkg'kgo u'ctg'qh'xct { kpi "uk' gu'cpf "o cuugu0Vj g'rcti gt"qdlgew'j cxg'rcti gt"o cuu'cpf "ctg" y qtv' "o qtg'r qkpw'dw'bo cng'ceegrctckpi "urqy gt'hqt'vj g'URJ GTG/UO

Vj g'ucvgnkg'kgo u'eqo g'y kj "vj tgg'uk' gu'qh'y j kej "vj gtg'ctg'y q"gej 0Vj g'Uo cm'kgo "j cu" "uk' g'cpf "o cuu' qh'URJ GTGU0K'eqngv'f'lp'vj g' qpg.'kvi kxgu'20r u'r gt'ugeqpf "cpf 'kh'c'URCEG/U'ectt'kgu'k'k'ecp" ceegrctcv'cv': I; 'tcvg0Vj g'O gf kwo "kgo "j cu" "uk' g'cpf "o cuu'qh'URJ GTGU0Y j gp'lp'vj g' qpg'kvi kxgu" 20r7'r u'r gt'ugeqpf "cpf "c'URCEG/U'y kj "vj g'o gf kwo "kgo "ecp'ceegrctcv'cv' "tcvg0H'kpcmf "vj g'rcti g'kgo " j cu" "uk' g'cpf "o cuu'qh'URJ GTGU0K'i kxgu'20'r u'r gt'ugeqpf "cpf "o cngu'c'URCEG/U'ceegrctcv'cv': B3" tcvg0"

Vcdrg'; <Uk' g'cpf "O cuu'qh'kgo u'eqo r ctgf "q'c'URJ GTGU"

	2D	3D	Alliance
Neti g'Ucvgnkg'kgo "	51 "	51 "	51 "
O gf kwo "Ucvgnkg'kgo ""	316 "	316 "	316 "
Uo cm'Ucvgnkg'kgo "kpenf kpi "Ur gekri'kgo "	31 "	31 "	31 "
F qenki "Cf cr vt"	P 10 "	P 10 "	P 10 "

"



SPACE-SPHERES'; Ua Y'A Ubi U''

Vcdrg'32<"Ucvgmkg'Kgo 'F ko gpukpu"\*Ngpi vj "qh'c'ukpi ng'nceg"? "4, 'tcf kwu"

Item Type	Radius
Ncti g'Kgo 'Tcf kwu"	*20597h URI GTGaTCF KWU+?"2026347"
O gf kwo 'Kgo 'Tcf kwu"	*2047h URI GTGaTCF KWU+?"202497"
Uo cmi'Kgo 'Tcf kwu"	*20847h URI GTGaTCF KWU+?"2023597"

"

Vcdrg'33<Ceegrntcvkqp'Tcvgu'ht"URCEG/U'y kj 'f khtgtpv'Kgo u"

	2D	3D	Alliance
Ncti g'Ucvgmkg'Kgo "	: B3"	: B3"	: B3"
O gf kwo 'Ucvgmkg'Kgo ""	617"	617"	617"
Uo cmi'Ucvgmkg'Kgo 'kpenf lpi 'Ur gekri'Kgo +"	: l; "	: l; "	: l; "
F qemipi 'Cf cr vgt"	P IC"	P IC"	P IC"

"

kp'vj g'cmkpeg'i co g'vj g'ucvgmkg'kgo u'j cxg'kpgtvc0'kgo u'f tqr r gf 'htgo 'c'o qxkpi 'ur j gtg'cv'xgmekkgu" i tgcvt'vj cp'2023o lu'qt'eqnkf gf 'y kj 'cv'xgmekkgu'i tgcvt'vj cp'2023o lu'y kn'eqpvkpwg'o qxkpi 'cv'vj g'ur ggf " y kj 'y j lej 'vj g'f 'y gtg'tgrucgf 'qt'cv'vj g'ur ggf 'qh'vj g'eqnkukqp'0'k'vj g'f 'j k'vj g'i co g'dqwpf ct{ 'vj g'f 'tgrwtp" vq'vj gk'qtki kpcn'uvct'kpi 'r qukskqp'0'kgo u'f tqr r gf 'kp'Cuugo dn' \ qpgu'ht'Ucvgmkg'Eqpuxwv'kqp'y kn'pqv" j cxg'kpgtvc0'

30605'Qvj gt 'Kgo 'F gvcku"

Ecni'vj g'i co g'hwpev'kqp'kp'vj cu'kgo \*kp'v'kgo akf '+v'f vgtto kpg'y j gvj gt'vj g'kgo 'ku'j grf 'd{ "pqdqf { \*2+." { qw\*3+."qt" { qw"qr r qpgpv\*4+0'

kp'5F 'cpf 'cmkpeg. 'C'URCEG/U'y kn'dg'r gpcrk' gf 'kh'k'eqnkf gu'y kj 'cp'kgo 'qt'y kj 'cpqvj gt 'URCEG/U' Vj g'r gpcn'f 'y kn'dg'f vgtto kpg'f 'd{ 'vj g'URCEG/U'u'o qo gpwo 'y j gp'k'eqnkf gu'y kj 'vj g'kgo 0\*k'vj g' cmkpeg'r j cug'vj g'r gpcn'f 'ku'f vgtto kpg'f 'd{ 'vj g'URCEG/U'u'igr'v'kxg'o qo gpwo 'y kj 'vj g'kgo +'Vj ku" r gpcn'f 'cr r n'gu'gxgt { y j gtg'gzegr v'kpu'k' g'c'URCEG/U'vgo au'qy p'Cuugo dn' \ qpg'y j gtg'eqnkukqp'u'y kj " kgo u'y kn'pqv'dg'r gpcrk' gf 0'Ugg'ugev'kqp'30607'ht'o qtg'kphqto cvkqp'cdqwr'r gpcnk'gu'0'

Vj g'f kci tco 'dgrny 'uj qy u'j qy 'vj g'kgo u'ctg'r rnegf 'u{o o g'v'k'ecm'f . 'cv'vj g'uco g'f kucpeg'htgo 'vj g' f kci qpcr0'

SPACE-SPHERES; Ua Y'A Ubi U''

Hki wtg'7<F kci qpcr!U{o o o gt{ '\*y kj 'z.{'eqqtf kpcvgu'ht'cmkpeg'cf f gf +'

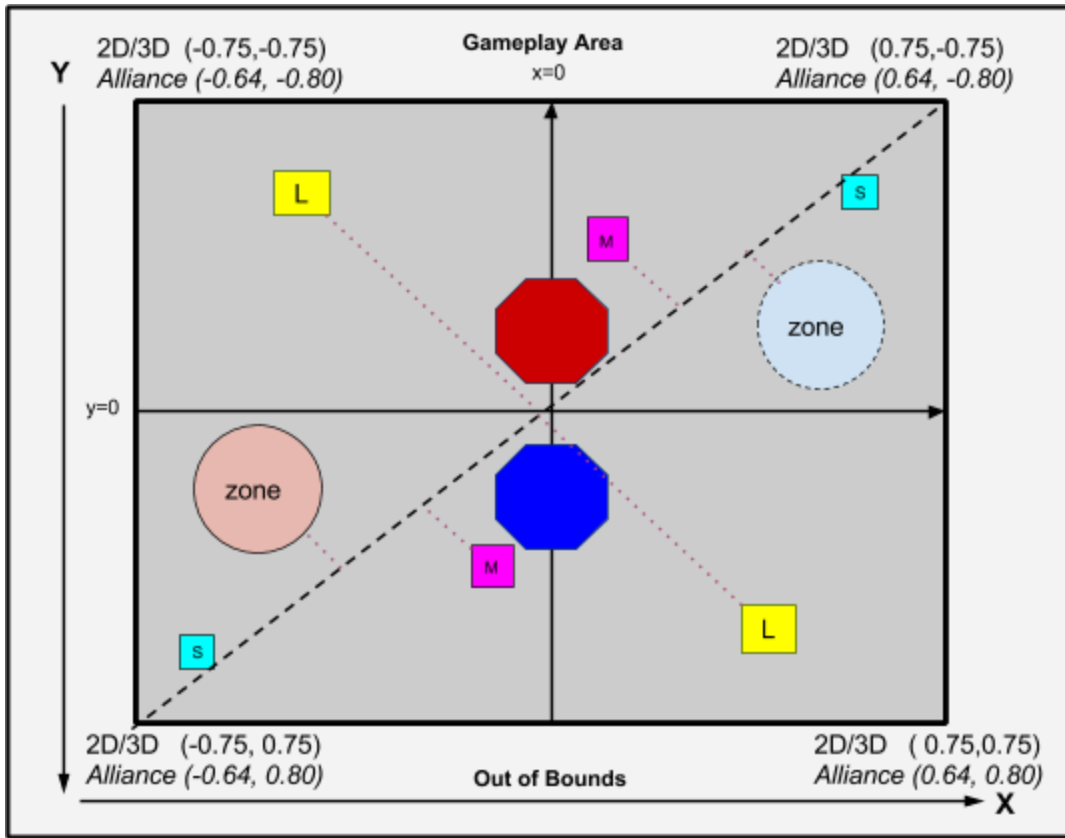


Diagram not to scale

SPACE-SPHERES; Ua Y'A Ubi U''

Hk wtg'8<F kci qpcriU{o o gv{ 'kp'Cmkpeg'I co g"

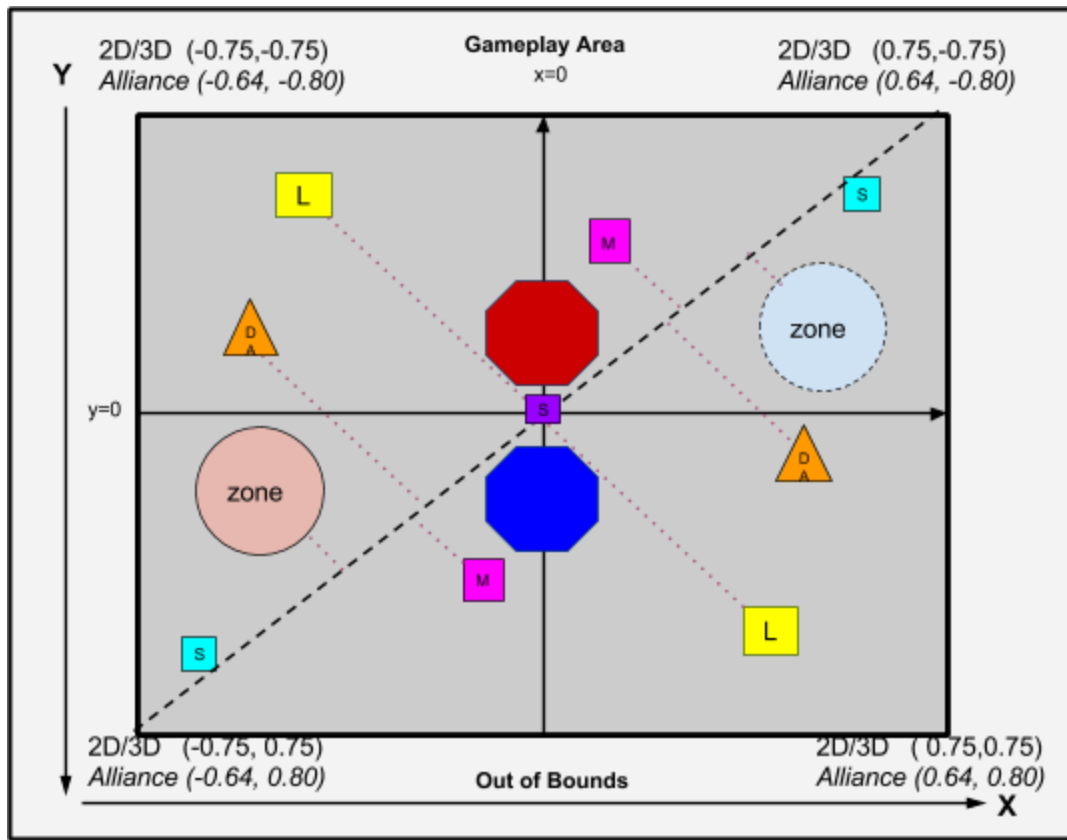


Diagram not to scale

3066"Ueqtkpi "Uwo o ct { ""

[ qwt'ueqtg'ku'rcti gn{dcugf"qp'yj g'kgo u"{qwj'cxg'kp}{qwt'Cuugo dn{ \ qpg0kgo u'ctg'y qtvj 'f khtgtpv'r qlpv' xcnwgu'f gr gpf kpi "qp'yj gk'uk'gu0"

Vj g'ueqtkpi "ecrewe'kqp'ku'cu'hqmgy u<"

Vcdrg'34"<Rqlpv'Xcnwgu'

	2D	3D	Alliance
Uo cni'kgo "kpenmf kpi "Ur gekci' kgo +"jr vulge_"	208"	208"	208"
O gf kwo "kgo "jr vulge_"	2087"	2087"	2087"
Ncti g'kgo "jr vulge_"	204"	204"	204"
F tqrr kpi "hpcniURU'kgo "	08 f'gttqt'tcf kwi'htqo "URU+"		
Ur gekci'kgo "Rleni'Wt " *qpg'wo g'dqpwu"	P IC"	P IC"	5"
F qemkpi "Cf cr vt"	P IC"	P IC"	N/A"

**SPACE-SPHERES**; Ua Y'A Ubi U''

3067 "Rgpcnkgu"

[ qwt'ueqtg'o c{ "cnuq'ej cpi g'f wg'vq'xctkqwu'r gpcnkgu'y cv'y kni'dg'gphqtegf "cu"{ qwr'rc{ "y' g'i co g0"

Vj g'r gpcnkgu'y kni'dg'gphqtegf "cu'hqmqy u<

Vcdng'35<"Rgpcnkgu"

	2D	3D	Alliance
Fqemkpeqttgem{ "	P IC"	/206"	/206"
Eqnkukqpu'y kj 'kgo u, "	P IC"	*70'x"{ qwt'URI GTGU" o qo gpwo 0"	*70'x"{ qwt'URI GTGU" o qo gpwo 'tgrvxxg'vq" y' g'kgo 0"
Eqnkukqpu'y kj 'URI GTGU'*cv' xgrqeklgu'dgny "eqnkukqp" cxqkf cpeg'y' tguj qrf +"	P IC"	*70'x"{ qwt'URI GTGU" o qo gpwo 0"Vj g" eqnkukqp'r gpcn{ "ku" cr r rkgf "vq'dqy " URI GTGU"	*70'x"{ qwt'URI GTGU" o qo gpwo 0"Vj g" eqnkukqp'r gpcn{ "ku" cr r rkgf "vq'dqy " URI GTGU"
Tgo clpki "kp"qr r qpgpw'   qpg"	P IC"	/206 luge "*chgt" ewo wrcvxxg'32'uge+ "	/206 luge "*chgt" ewo wrcvxxg'32'uge+ "

, Vj gtg'ku'pq'r gpcn{ "cr r rkgf 'hqt'eqnkukqpu'y kj 'kgo u'hqecvqf 'lpukf g'y' g'r rc{ gtai'qy p'Cuigo dn{ \ qpg0"

3068 "Gpf "qh'i co g"

Vj g'i co g'gpf u'chgt'3: 2'ugeqpf u0Y j kej gxgt'vgo "j cu'o qtg'r qlpw'y kpu0k'v' g'wprkngn{ "ecug'qh'c'vkg."  
y j qgxtg'ku'emqutg'vq'y' g'egpvt ltki kp'qh'y' g'r rc{ lpi "hgrf "cv'i co g'gpf 'y' kpu0'

40 "Vqwtqpcu' g'p'v"

C\ gtq'Tqdqv'leu'vqwtqpcu' g'p'v'eqpukuu'qh'ugxgtcn'r j cugu'ecmgf "eqo r gvkqpu0Vj g'hqmqy lpi "vcdng'rkau'y' g"  
ng{ "f gcf rkpgu'hqt'v' g'4238"vqwtqpcu' g'p'v'ugcuqp<

Vcdng'36<"Vqwtqpcu' g'p'v'Mg{ 'F cvgu"

Date (2016)	Event
Sept 10 (Sat)	Kick-off webcast
Sept 30 (Fri)	2D Simulation Competition Deadline (end of practice)
<b>UPDATE Oct 30 (Sun)</b>	3D Simulation Competition Deadline
Nov 5 (Sat)	Alliance Formation Event
Dec 2 (Fri)	Semifinal Simulation Competition Deadline
Dec 18 (Sun)	ISS Code Due
Jan 2017- Date TBD	ISS Final Competition

"

Vj g'tcpnkpi u'lp"gej "eqo r gvkqpu'ctg'f g'gto lpgf "d{ "c'Ngcf gtdqctf . "f guetkdgf "dgrny 0Vj g'4F "Uko wrcvxxg'p"



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4007'NcuVf c { 'qh'vj g'eqo r gvkkqp"

"Qp'vj g'ncuvf c { 'qh'vj g'eqo r gvkkqp. 'vj g'ngcf gtdqctf 'y knldg'twp'o wmk rg'vko gu'vq'eqpxgti gl'ucdkk g'vj g' tguwmu<'q'ecrewrvg'gpvt { 'r qukkqp'qh'vgco u'uwdo kvkpi 'hqt'vj g'htuv'vko g'cpf 'vq'cuuguu'hkpcnr'ncgo gpv'qh' cm'vgco u0'

4008'Ecrcwrcvki 'Tcvkpi u"

C'vgco au'ucpf kpi 'kp'c'eqo r gvkkqp'ku'f gvgto kpgf 'd { 'c'xcnwg'ecmgf 'tcvki 0Vj g'Ngcf gtdqctf 'tcenu'cm' o cvej gu'c'vgco 'j cu'r rc { gf 'ci ckpuv'qj gt'r rc { gtu'lp'vj g'eqwtug'qh'vj g'eqo r gvkkqp'cpf 'etgcvgu'c'tcvkpi " dcugf 'qp'vj g'qweqo gu0'

[ qwt'tcvkpi 'ku'vj g'hcvqt'T2'lp'vj g'gs wcvkqp'hqt'vj g'r tqdcdkk { 'qh' { qwt'vgco 'dgcvki 'cpqj gt'r c { gt'qh' tcvkpi 'T3'lp'c'ukpi ng'o cvej 0'

$$\text{Probability}(W) = e^{R0} / (e^{R0} + e^{R1})"$$

Vj g'xctkcdrg'T2'ku'eqo r wgf 'wukpi 'cp'cni qtkj o 'dcugf 'qp'Dc { gukcp'kphgtpego0Vj g'r tqdcdkk { 'qh'c'tcpm't i kxgp'c'ugtkgu'qh'i co g'qweqo gu'I 'ku'vj gp<"

$$P(r|G) = P(G|r)P(r) / P(G)"$$

ku'vj g'r tlqt'f kwtkdwkqp'qh'tcvkpi u.'y j lej 'ku'cuwo gf 'vq'xct { 'kp'c'tcpf qo 'y cmir tqegu'y kj 'c'ucpf ctf " f gxlcvkqp'qxgt'gcej 'f c { 'qh'vj g'eqo r gvkkqp'qh'20B.'ej qugp'chgt'vgvki 'hqt'ucdkk { 'qh'vj g'dqctf 0Vj ku' cmqy u'cmir tgxkqu'tcvkpi u'vq'ej cpi g.'cu'ko r rkgf 'd { 'vj g'pco g'Y j qrg'J kvqt { 'Tcvkpi 0K pqt kpi 'R\*1 + dgecwug'k'ku'c'pcto crk kpi 'eqpuv'v'y kj 'pq'ghge'v'qh'vj g'hkpcnr'tcvkpi 't.'cpf 'lpeqtr qtcvki 'vj g'ucpf ctf " f gxlcvkqp'qh'tcvkpi u.'j cxkpi 'gcej 'f c { 'qh'vj g'eqo r gvkkqp'tgr tguv'vki 'm"

$$\prod P(r|G) = P(g_k|r_k)P(r_k|r_{k-1})"$$

Vj g'hkpcnr'vgo 'R\*2+'ku'ugv'vq'20"

Vj g'cni qtkj o 'wugu'pgy vpa'u'o gvj qf 'vq'o czko k g'vj ku'r tqdcdkk { 'cu'c'hwpev'vki'qh' { qwt'tcvkpi 0Vj g'tcvkpi " cv'vj ku'o czko wo 'ku' { qwt'pgy 'tcvki 0'

4009'Uwo o ct { ""

Pqv'cmly kpu'ctg'gs wcr0Y kpu'cpf 'quugu'ctg'xcnwgf 'd { 'vj gk'tgncv'vki'vq'vj g'r tqdgcvgf 'y kp'r tqdcdkk { 0I qwt' tcvkpi 'eqttgur qpf u'vq'c'72' 'y kp'r tqdcdkk { .o gcpkpi " { qwt'ctg'o qtg'vj cp" 72'hkngn 'vq'y kp'ci ckpuv'vgco u' y kj 'mqy gt'tcvkpi u'vj cp" { qwtu.'dwb'pqr'ci ckpuv'vgco u'y kj 'j ki j gt'ueqtgu0Wpgzr gev'f 'o cvej 'tguwmu.'gkj gt' hcxqctdrg'qt'wphcxqctdrg.'y knihgcxg'vj g'o quv'pqv'legcdrg'ko r ceu'qp" { qwt'tcvkpi 0'

Cnj qwi j 'vj ku'r tqegu'ku'dcugf 'qp'r tqdcdkk { . 'k'ku'y j qm { 'tgrkcdrg0Vj g'tcpm'eqo r wcvkqp'cni qtkj o " eqttgevu'gttqtu'kp'tcpm'j kvqt { 'vj tqwi j qw'vj g'eqo r gvkkqp.'cpf 'qr vko k cvkqp'cpf 'ucdkk cvkqp'uchgi wctf u' j cxg'dggp'cf f gf 'vq'ecrewrvg'tcpm'ly kj 'gzvgo g'r tgekkqp0Cnuq.'vj g'ngcf gtdqctf 'ku'f guki pgf 'vq'cmqy 'f cvc' vq'r tqr ci cvg'vj tqwi j qw'vj g'u'f vgo 0K'v'y q'r rc { gtu'f qpwt'wp'ci ckpuv'gcej 'qvj gt'dgecwug'vj gk'tcpm' f hhtgpep'ku'o qtg'vj cp'32'umqu.'qxgtm'r r kpi 'o cvej gu'w'f cvg'dqj 'vgco u0'tcvkpi u0'Gxgt { 'vgco au'tcvkpi 'ku' tgrv'xg'vq'cm'lyj gt'tcvkpi u0'

Vq'uwo o ct k g'vj gtg'ctg'ugxgtcni'cvqtu'vj cv'chge'v'c'vgco au'tcvkpi <d0 cvej 'Qweqo gu'c'vgco 'vj cv' eqpukv'pvt { 'y kpu'o cvej gu'y kn'wuwcm { 'j cxg'c'j ki j gt'tcvkpi 0'



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dQr r qpgpvTcpniY kppkpi "ci ckpuv'c"j ki j gt'tcpngf "vgco 'y kni'wuwmf 'ko r tqxg"c'vgco au'tcvkpi 0'

dQvj gt'O cvej 'Qweqo gu'Vj g'Ngcf gtdqctf 'cngul'kvq'beeqwpv'cmib cvej gu'r r{ gf 'd{ 'cm'vgco u0Gxgp'kh'y q" vgo u'f q'pqv'j cxg'c'f k'gevg'pewpvg. 'vj gk'o cvej 'qweqo gu'y kni'j cxg'cp'gh'gevcu'vj g' 'hngt'vj tqwi j 'vj kf" r ct'vku0'

Vj g'vgco 'y kj 'vj g'j ki j guv'tcvkpi 'y kni'dg'tcpni3'qp'vj g'ngcf gtdqctf 0'Vj g'dguv'y c{ 'vq'uvcdkkl' g'cpf 'gxgp" ko r tqxg'f{ qwt'tcpniku'vj g'o quv'iqi kecnly c{ <nggr 'y qtnkpi 'cv'f{ qwt'cni qtkj o u0'Vj gtg'ctg'pq'uw'gh'k'g" cngt'pcvx'gu0Cnuq. 'f qpø'hgv'hgct'qh'c'dcf 'o cvej 'twk'kpi "{ qwt'vgco au'r tqur geu'hnggr "{ qw'ht'qo 'uwo k'kpi " gctn'0Gxgp'vj qwi j 'gxgt{ 'uwo k'kq'p'ku'h'cevt'gf 'kvq'f{ qwt'o cvej 'j kvqt{ . 't'guwmu'qh'r cuv'eqo r g'k'kqpu" f go qpust'cv'vj cv'vgco u'vj cv'o cng'o cp{ 'uwo k'kq'p'v'gpf 'vq'r gthqto 'd'gwgt0'

Hkpcmf . 'k'ku'ko r qt'vcpv'vq'pqvg'vj cv'chgt 'gxgt{ 'eqo r g'k'kq'p'r j cug. \*4F . 5F . 'Cnk'peg'r j cug+'cm'tcpnikpi " f cv'ku't'gh'g'uj gf 'cpf 'vgco u'uctv'ht'qo 'u'et'cej 0'

### 404'4F "Rt'ce'veg'Uko w'v'k'q'p'E'qo r g'v'k'k'q'p"

Cm'vgco u'vj cv'eqo r ngv'c'xcnkf 'tgi k'ut'cv'k'q'p'ct'g'g'ri k'ldg'vq'r ct'v'k'k'p'v'g'lp'vj g'4F 'r t'ce'veg'uko w'v'k'q'p" eqo r g'v'k'k'q'p0'

P qvg<Uxgt'cni'kv'vgt'p'cv'k'q'p'cn'vgco u'ht'qo 'pqp/KU'p'cv'k'q'p'u' c{ 'r ct'v'k'k'p'v'g'lp'vj g'4F 'cpf '5F 'r j cugu'qh'vj g" vqwt'pco gpv'j qy gxgt. 'vj g'f 'y kni'pqv'eqp'v'p'w'g'lp'v'q'vj g'c'nk'peg'r j cug0'Vj g'ug'vgco u'y kni'r ct'v'k'k'p'v'g'd{ " k'p'x'k'c'v'k'q'p'q'pn'0'

### 405'5F "Uko w'v'k'q'p'E'qo r g'v'k'k'q'p"

Cni'WUC. 'T'w'uk'p. 'cpf 'C'w'ut'c'ri'k'p'vgco u'vj cv'eqo r ngv'c'xcnkf 'tgi k'ut'cv'k'q'p'cpf 'uwo k'v'eqf g'vj cv'cej k'gx'gu'c" p'q'p' g'tq'ueqt'g'y j gp'eqo r g'v'g'f 'ci ckpuv'c'õ'dir'p'n'r r{ g'tõ'\*c'r r{ g't'y kj 'pq'eqf g'+d{ 'vj g'4F 'r t'ce'veg" eqo r g'v'k'k'q'p'f' gcf r'k'p'g'ct'g'g'ri k'ldg'vq'r ct'v'k'k'p'v'g'lp'vj g'5F 'uko w'v'k'q'p'eqo r g'v'k'k'q'p0'J qy gxgt. 'q'pn' 'vj g'47" j ki j guv'ueqt'kpi 'vgco u'ht'qo 'g'cej 'GUC' o go dgt'uv'cv'g'y kni'eqp'v'p'w'g'lp'v'q'vj g'5F 'r j cug0'

Y j gp'vj g'5F 'eqo r g'v'k'k'q'p'uct'v'vj g'i co g'y kni'dg'w'f'cv'g'f'y kj 'p'gy 'ej cng'pi gu'cpf 'vj g'eqtt'gur q'pf k'pi " VDC'xcn'gu'y kni'dg'c'pp'q'w'pegf 0'

### 406'Cnk'peg'Hqto c'v'k'q'p'G'x'g'p'v'

Vj g'v'qr 't'cpngf " : 6'vgco u'qp'vj g'ngcf gtdqctf 'cv'vj g'g'p'f 'qh'5F 'uko w'v'k'q'p'r r{ 'y kni'hqto "4: 'c'nk'pegu'qh' " vj tgg'\*5+'vgco u'g'cej 0'Vj g'4: 'c'nk'pegu'y kni'y qtn'leqqr g't'cv'k'g'n' 'vq'eqo r ngv'vj g'ugo k'k'p'cni'cpf . 'k'h'p'qv" g'no k'p'cv'g'f . 'vj g'h'k'p'cni0'Vgco u't'cpngf 'd'g'ny 't'cpni: 6'y kni'dg'k'p'x'k'g'f 'vq'r ct'v'k'k'p'v'g'lp'vj g'X'k't'w'cn'H'k'p'cni0'Ugg" U'g'v'k'q'p'40 'h'q't'f'g'v'k'ni'cd'q'w'vj g'X'k't'w'cn'H'k'p'cni0'

Vj g't'cpnikpi 'qh'vj g'vgco u'y kni'dg'f'gv'to k'p'gf 'd{ 'vj g't'cpnikpi u'cv'vj g'em'ug'qh'vj g'5F 'ngcf gtdqctf 0'

Chgt 'vj g'5F 'ngcf gtdqctf 't'cpnikpi u'ct'g'c'pp'q'w'pegf . 'cf x'c'p'ek'pi 'vgco u'y kni'j cxg'vj tgg'f'c{ u'vq'eqp'v'ce'v'g'cej " q'vj gt'vq'f'k'uew'u'vj g'k't'c'nk'peg'r' t'g'ht'g'p'egu0C'p{ 'vgco u'vj cv'f'q'p'qv'y kuj 'vq'eqp'v'p'w'g'lp'vj g'V'q'wt'pco gpv'y kni' j cxg'vj g'qr r qt'w'p'k'f{ 'vq'eg'f'g'vj g'k't'r'q'uk'k'q'p'v'q'vj g'p'gz'v't'cpngf 'vgco 0'

Vj g'Cnk'peg'Hqto c'v'k'q'p'G'x'g'p'v'y kni'c'ng'r' r'ceg'q'p'P q'x'go dgt'7'vj 0'Vj g'c'nk'peg'hqto c'v'k'q'p'g'x'g'p'v'qt'õ'f' t'chv'



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f c{ ö'ku'cp'qprkpg'gxgpvf wtłpi 'y j lej 'vgco u'y knlhqmny 'vj g'cmkpege'ugrgevkqp'r tqeguuf guetkdgf "dgmny "vq" kpxkg'qvj gt'vgco u'lpvq'cmkpege'cpf qt'ceegr v'vj gkt'r megy' kj lp'cp'cmkpege'OC v'rgcu'qpg'tgr t gugpvc'kxg" Itqo "gcej 'vgco 'b wuv'r ctv'ekr cvg'lp'vj g'qprkpg'öf tch'f c{ ö'gxgpv'ht'vj g'vgco "vq'eqpvkpwg'vq'vj g'cmkpege" r j cug'OC f f kkpncif gvcku'cdqw'vj g'qprkpg'öf tch'f c{ ö'cpf 'j qy "vq'r ctv'ekr cvg'y kn'dg'r tqxkf gf 'lp'cf xcege" qh'vj g'gxgpv'ö'

F wg'vq'vj g'rti g'pwo dgt'qh'vgco u'kpxqkxgf . 'vj g'f tch'v' kn'dg'ur rkv'lpvq'vy q'r ctv'u'cu'uj qy p'lp'vj g'dgmny " hki wtg'OC m'vgco u'tcpngf 'y kj 'qf f 'pwo dgtu'y kn'r ctv'ekr cvg'lp'F tch'r ctv'3'cpf "cm'vgco u'tcpngf 'y kj "gxgp" pwo dgtu'y kn'r ctv'ekr cvg'lp'F tch'r ctv'4'OCcej 'f tch'v' kn'kpenw'f g'64'vgco u'ö'

**Hki wtg'9'<F kxkukp'qh'Vgco u'ht'vj g'F tch'u"**

Draft part 1 teams with odd numbered rankings			Draft part 2 teams with even numbered rankings		
1	29	57	2	30	58
3	31	59	4	32	60
5	33	61	6	34	62
7	35	63	8	36	64
9	37	65	10	38	66
11	39	67	12	40	68
13	41	69	14	42	70
15	43	71	16	44	72
17	45	73	18	46	74
19	47	75	20	48	76
21	49	77	22	50	78
23	51	79	24	52	80
25	53	81	26	54	82
27	55	83	28	56	84

*Note: The times of the draft parts are To Be Announced*

Vj g'cmkpege'ugrgevkqp'r tqeguuf knlhqmny 'c'ugtr gpv'kpg'r cvgt p'knwutcvgf 'lp'vj g'Hki wtg'dgmny < " ö'vj g'j ki j guv'tcpngf 'vgco 'ugrgeu'vj gkt'r ctv'pgt'htqo 'cp{ "gzegr v'vj g'vqr '8'tcpngf 'vgco u'lp'vj gkt'f tch'ö' ö'vj g'pgz'vj ki j guv'tcpngf 'vgco 'ugrgeu'vj gkt'r ctv'pgt'htqo 'cp{ 'qh'vj g'tgo cłłpi 'vgco u'gzegr v'vj g'vqr '8' tcpngf 'vgco u'lp'vj gkt'f tch'v' " ö'36'r cktu'ctg'etgcvgf 'lp'vj ku'o cpggt" " ö'c'dtgcni'cngu'r mege'ht'vj g'pgy 'r cktu'vq'f kuewu'vj gkt'ugrgevkqp'ht'vj g'5tf 'cmkpege'vgco " ö'vj g'öny guw'ö'tcpngf 'r ckt'vj gp'ugrgeu'vj gkt'5tf 'vgco 'htqo 'vj g'tgo cłłpi '36'vgco u" ö'vj g'ö4pf 'hqy guw'ö'tcpnr ckt'o cng'vj g'pgz'v'ugrgevkqp" ö'Eqpvkpwg'v'p'kni'cm'36'cmkpege'ctg'htqo gf ö' ö'vj ku'r tqegu'ku'f wr rkecvgf 'lp'dqv' 'f tch'v'gxgpw'vq'gpf 'y kj 'c'v'q'cn'qh'4: 'cmkpegeu"

*Rule: No more than 2 of the teams in an alliance can be from the same continent.*

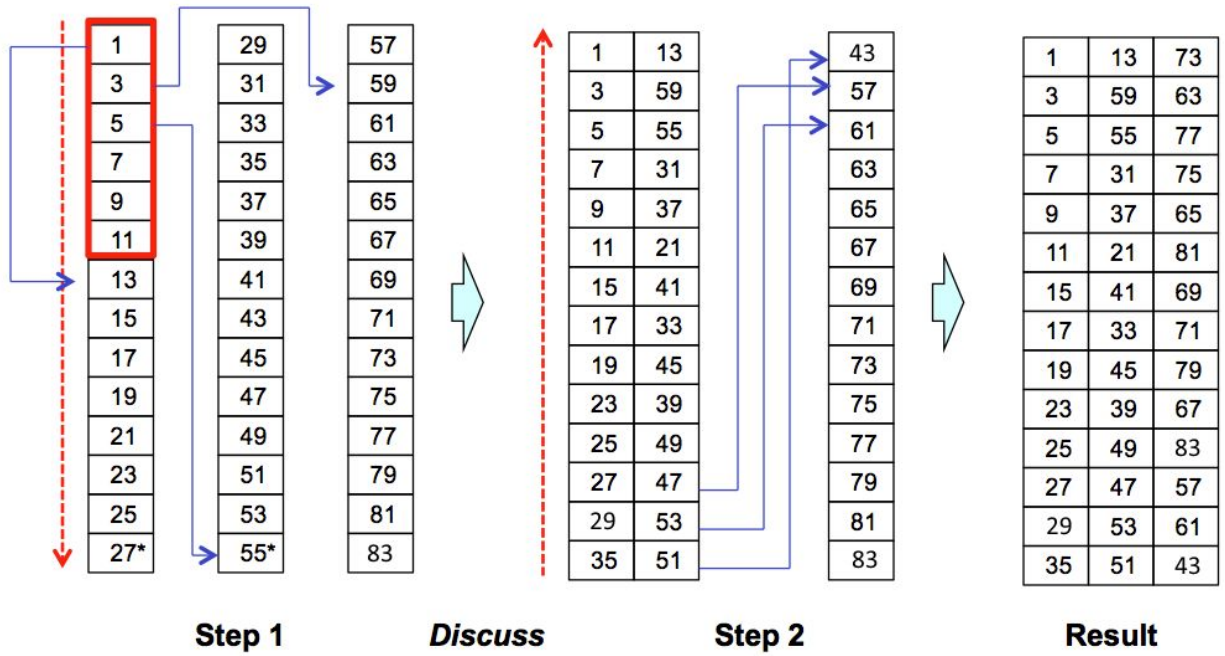
"



**SPACE-SPHERES**; Ua Y'A Ubi U''

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Hki wtg': <Cmncpeg'Etgcvkqp'Rtqeguuf go qputcvgf 'hqt'vgco u'y kj 'qf f 'pwo dgt'tcpnkpi u'



\*; Vj g'gzco r ng'uj qy p'cdqxcg'ku'err tqzko cvg0"

**40 "Y kf 'Ectf u'Gzr nckpgf /'T gugt xgf "**

\*Vj ku'ugevkqp'ku'P IC'hqt'yj g\ gtq'Tqdqkcu'J ki j 'Uej qqn'Vqwt pco gpv'4238+

**48 "Ugo khpnc'Uko wrvkqp'Eqo r gvkkqp"**

Vj g'4: "cmncpegu'etgcvgf 'f wtkpi 'yj g'Cmncpeg'Hqto cvkqp'Gxgpv'y knlr ctvkr cvg'lp'yj g'ugo khpnc'uko wrvkqp' eqo r gvkkqp0"

Y j gp'yj g'ugo khpnc'eqo r gvkkqp'lwctvu.'yj g'i co g'y knldg'wr f cvgf'y kj 'pgy 'ej cmngpi gu'cpf 'yj g' eqttgur qpf kpi 'VDC'xcnngu'y knldg'cppqwpegf 0Vj gug'pgy 'ej cmngpi gu'ctg'kpvgpf gf 'vq'dg'uwducp'kcn' gpqwi j 'vq'tgs wkg'r ctvkr cvkqp'qh'cm'cmncpeg'vgco u'lp'r tgr ct kpi 'eqo r gvkkqp'uwo kukqu0"

### 40 "KU'Hkpcn'Ego r gvkqap"

Vj g'vqr "36"cmkpegu'qp'yj g'rgcf gtdqctf "cv'yj g'gpf "qh'ugo kkpncr r { 'y kn'cf xcpeg'v'vj g'KU'Hkpcn' Ego r gvkqap0Cmkpegu'tcpngf 'dgrny 'tcpm'36'y knidg'lpkxgf "v'q'r ctvkr cvg'lp'vj g'Xktwcn'Hkpcn0Ugg" Ugevqap40 "hqt'f gvckm'cdqw'vj g'Xktwcn'Hkpcn0'

Vj g'KU'Hkpcn'y kn'vcng'r rneg'cdqctf 'yj g'kpgt'pckqpcn'Ur ceg'Uc'vqap'y kj 'rkg'v'cpuo kuukqap'v'q'O K/0' Vgco u'y kn'idg'lpkxgf "v'q'rkg'dtqcf ecuv'gxgpw'cv'O K'WU+."cp'GUC"rqecvqap'GW+."cpf "cv'Wp'kxgtuk'f "qh' U'f pg'f "Cwutcrk-0'

### 40B "Qxgtxkgy "cpf "Qdlgev'xgu"

Twppkpi "c'rkg'ego r gvkqap'y kj 'tqdqu'lp'ur ceg'r t'gugpw'c'pwo dgt'qh'tgcn'y qtrf "ej cmgpi gu'vj cv'rcvqt" kpv'vj g'twgu'qh'vj g'ego r gvkqap0Co qpi 'o cp'f 'kgo u.'yj g'ucvgnk'gu'wug'dcvgt { 'r cemi'cpf 'EQ'4'vcpm'vj cv' ecp'dg'gzj cwv'gf "lp'vj g'o kf f ng'qh'c'o cvej . 'cpf 'yj g'ego r gvkqap'o wu'v'k'lp'vj g'cmqecv'f "vko g'0Vj ku'ugevqap" guvcd'kuj gu'ugxgtcni' wk'grk'gu'vj g' g' g' T'qdq'v'eu'v'gco 'kpv'gpf u'v'q'hqmqy 'f wtkpi 'yj g'ego r gvkqap0Mggr 'lp' o kpf 'vj cv'cu'lp'cp'f "t'ghgtggf "ego r gvkqap.'cf f k'kqpcn'tgcn'vko g'lwf i o gpw'o c { 'dg'tgs wkt gf 0R'g'cug't'gur gev' vj g'ug'f gekuk'pu'cpf "eqpuk'f gt'vj go 'h'kpcr0'

Cdqxg'cm'vj g'hkpcn'ego r gvkqap'ku'c'f go q'p'ut'cv'qap'qh'cm'vj g'j ctf 'y qtn'v'gco u'j cxg'r w'hqty ctf "v'q'o cng'k'v' v'q'vj g'KU'0Vj g' T'uch'hu'j ki j guv'r tkqt'k'f 'y kn'idg'o cmkpi "uwt'g'xgt { "cmkpeg'j cu'c'ej cpeg'v'q'tw'p'qp'vj g' ucvgnk'gu'0K'ku'cnuq'g'zr gev'f 'vj cv'vj g'ego r gvkqap'y kn'j cxg'ugxgtcni'N'quu'qh'Uki pcrf "NQU+r g'k'qf u'y j g'g' vj g'rkg'hggf 'y kn'idg'w'p'cx'ck'rd'g'0Y g'y kn'c'wgo r 'v'q'o cng'uw'g'cm'v'gco u'i gv'v'q'ugg'c'rkg'o cvej 'qh'vj g'k' r r { gt.'dw'h'k'k'ij kpi 'yj g'ego r gvkqap'y kn'vcng'r tkqt'k'f 0'

Vq'uwo o ct'k'g.'vko g'r tkqt'k'f 'y kn'idg'cmqecv'f "v'q'<

3+Twppkpi "cm'uwdo kuuk'pu'cdqctf 'yj g'KU'cv'rgcuv'qpeg"

4+Ego r r'gvkpi 'yj g'v'q'w'pco gpv'dtcengv'

5+Twppkpi "cm'uwdo kuuk'pu'f wtkpi 'rkg'x'k'f gq"

Y g'j qr g'v'q'ego r r'gv'vj g'v'q'w'pco gpv'wukpi "qpn' t'guw'm'ht'qo 'o cvej gu'tw'p'cdqctf 'yj g'KU.'dw'ukw'cv'q'pu' o c { 'ct'k'ug'vj cv'y kn'htq'eg'wu'v'q'tgn' "qp'qj gt'o gcuw't'gu'we'j 'cu'uko w'v'gf 'o cvej gu'0'

### 40C "Ego r gvkqap'Hqto cv"

Vj g'cmkpegu'y kn'idg'f k'k'f gf "k'p'q'4"eqphgt'gpegu'ht' 'yj g'KU'ego r gvkqap0Cm'v'gco u'tcpngf 'y kj "q'f f" pwo dgtu'y kn'r ctvkr cvg'lp'E'qphgt'gpeg'C="cm'v'gco u'tcpngf 'y kj "gxgp'pwo dgtu'y kn'r ctvkr cvg'lp' E'qphgt'gpeg'D.'cu'uj qy p'lp'vj ku'h'ki wt'g0'

Hki wt'g'; <F k'k'k'q'p'qh'V'gco u'd'gwy ggp'E'qphgt'gpegu'"

Conference A Alliance ranks	Conference B Alliance ranks
1,3,5,7,9,11,13	2,4,6,8,10,12,14

Gcej "eqphgt'gpeg'y kn'k'p'cn'f g'q'p'g'od'f go'v'gco "cmkpegu'tcpngf "00"cpf "%4"cw'qo c'v'ecm'f "cf xcpeg'v'vj g' eqphgt'gpeg'ugo kkpncr+cpf "4'dtcengv'qh'5"cmkpegu'gcej 0Gcej "dtcengv'y kn'r r { "5"o cvej gu'lp't'q'w'p'f /t'q'd'k'p"

SPACE-SPHERES; Ua Y'A Ubi U''

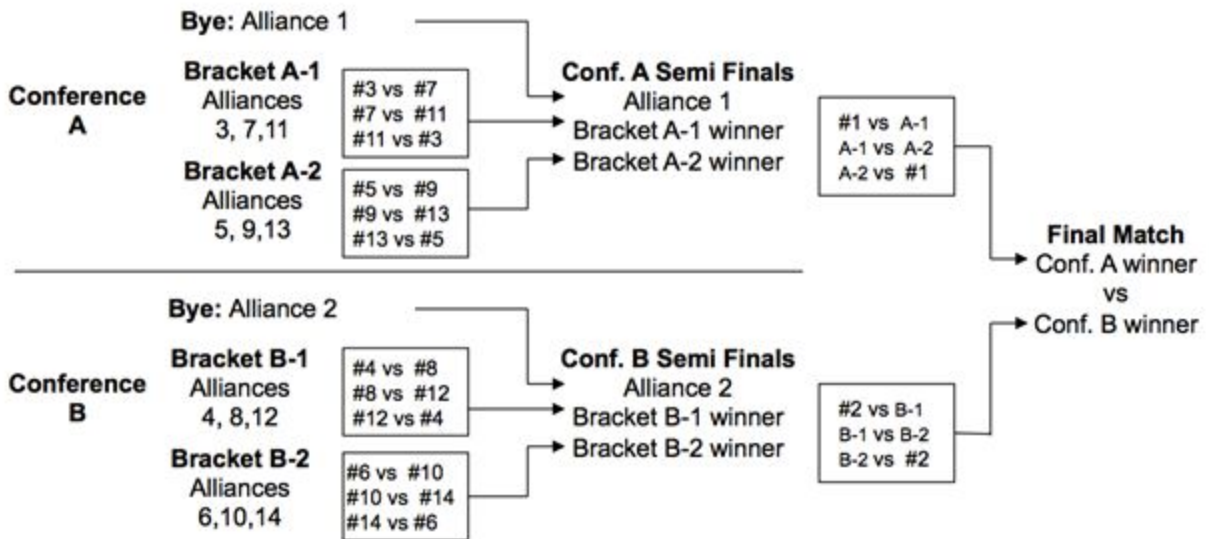
uv{rg<cnkpeg'C'xu0D.'D'xu0E.'cpf'E'xu0C0'

Chgt'yj g'tqwpf/tqdkpu'ctg'eqo r ngvg.'yj gtg'y kn'dg'c'y kppgt'qh'gcej "dtcengv\*uj qy p'cu'DT3.'DT4'lp'yj g" KUUEqo r gvklqp'Dtcengv'hi wtg0'Vj g'hqmqy kpi 'twgu'f gvgto kpg'yj g'y kppgt<

30Vj g'cnkpeg'y kj 'yj g'o quv'y kpu'cf xcpegu'40K'cnkpegu'ctg'vkgf 'hqt'y kpu.'yj g'cnkpeg'y kj 'yj g'j ki j guv' qvcl'ueqtg'cf xcpegu'50K'ueqtgu'ctg'vkgf.'uko wrcvqp'tguwnu'y kn'dg'wugf 'vq'dtgcml'yj g'vkg'Vj g'ugo kkpcl' o cvej 'dgy ggp'yj g'vqr '4'dtcengv'y kppgtu'cpf 'yj g'od{ go'vgo 'y kn'cnuq'dg'r r{ gf 'lp'tqwpf/tqdkp'uv{rg0'Vj g' y kppgt'qh'y ku'o cvej 'ku'f gvgto kpgf 'lp'yj g'uco g'y c{ 'cu'yj g'dtcengv'y kppgtu<

30Vj g'vqr '4'cnkpegu'y kj 'yj g'o quv'y kpu'lp'yj gk'tdcengv.'cf xcpeg'40K'yj gtg'ku'c'vkg'hqt'y kpu.'yj g' cnkpeg\*u'y kj 'yj g'j ki j guv'qvcl'ueqtg'lp'yj gk'tdcengv'cf xcpeg'50K'ueqtgu'ctg'vkgf.'uko wrcvqp'tguwnu'y kn' dg'wugf 'vq'dtgcml'yj g'vkg'Vj g'y kppkpi 'cnkpeg'itqo 'gcej 'eqphgtgpeg'y kn'r r{ 'c'ukpi ng'o cvej 'vq'f gvgto kpg' yj g\ gtq'Tqdkvku'KUUEj co r kq0'Vj g'hqkpi 'cnkpeg'y kn'dg'cy ctf gf '4pf'r rneg0'

Hki wtg'32"<KUUEqo r gvklqp'Dtcengv'



Definition: Successful Match

- Both satellites move correctly to initial positions
- Both satellites have normal motion throughout the test
- Both satellites return a valid score
- Neither satellite expends its CO<sub>2</sub> tank during a test run

Definition: Simulated Match

In advance of the competition, the ZR Team will run a simulated round robin competition between all participating teams. The results from matches in this competition will be used in place of ISS tests if necessary (see below.) The results of a simulated match will only be announced if they are used in the live competition.



SPACE-SPHERES; Ua Y'A Ubi U''

tgr qtvu'v'j g'r wdne'hqtwo u\*H'pgeguuct{.\ T'y knly qtmly kj 'vj g'uwdo kwkpi 'vgco 'v'gpuwtg'vj cv'pq'vgco "

"Eqf g'cpf 'o cpwcn'htggj g'y knidg'lp'ghgevs'f c{ u'dghqtg'vj g'uwdo kwkqp'f gcf r'kpg'qh'c'eqo r g'v'k'kp0'

"Y kj kp'vj g'eqf g'htggj g'r g'kqf 'vj g'eqf g'uj cmlqxttkf g'cmlyj gt'o cvgtkcu.'kpenw'kpi 'vj g'o cpwcn'cpf "

"Vj gtg'y knidg'pq'dwi 'hkzgu'f wt'kpi 'vj g'eqf g'htggj g'r g'kqf 0Cm'dwi 'hkzgu'o wuv'cng'r nreg'dghqtg'vj g' "

"I co g'ej cmgpi g'cf f'k'k'kp'u'cpf "cppqwpego gpv'qh'VDC'xcmwgu'lp'vj g'i co g'o cpwcn'o c{ "dg'dcu'gf "qp" "

504'Gyj keu'Eqf g"

dVj g\ T'vgco 'y knly qtmly kki gpv'w'w'qp'tgr qt'v'qh'cp{ 'wpgj kecn'ukw'v'k'qp.'qp'c'ecug'd{ 'ecug'd'cu'k'0'

dVgco u'ctg'ut'qpi n' "gpeqwtci gf 'v'g'gr qt'v'dwi u'cu'k'qp'cu'vj g{ 'ctg'h'q'w'p'f =k'p'v'p'v'k'p'cn'c'd'w'ug'q'h'cp" "

dVgco u'uj cml'p'qv'k'p'v'p'v'k'p'cm' 'o c'p'k'w'v'g'vj g'ue'q't'k'pi 'o g'j'q'f u'v'q'ej cpi g't'c'p'n'k'pi u'0'

dVgco u'uj cml'p'qv'c'w'go r v'q'i c'k'p'ce'egu'u'v'g'ut'k'v'g'f \ T'k'p'h'q'to c'v'k'p'0'

dY g'g'p'eq'wt'ci g'vj g'w'ug'q'h'r w'dne'hqtwo u'cpf "cmjy 'vj g'w'ug'q'h'r t'k'c'v'g'o g'j'q'f u'h'qt'eqo o w'p'k'c'v'k'p'0'

dXwi ct'qt'q'h'g'p'uk'g'n'c'pi w'ci g.'j' c't'c'uo gpv'qh'q'vj gt'w'ug'tu.'cpf "k'p'v'p'v'k'p'cn'c'p'p'q{ c'p'egu'ct'g'p'qv'r g'to k'w'g'f "

dEqf g'u'wdo k'w'g'f 'v'c'eqo r g'v'k'k'p'o w'v'd'g'y t'k'w'p'q'pn' 'd{ 'u'w'f'g'p'u'0'

dRn{ g'tu'o c{ "p'q'v'ce'egu'u'v'g'k'o r n'go gp'c'v'k'p'k'p'w'c'p'eg'q'h'vj g'i co g'q't'o q'f'k'h{ 'cp{ 'x'c't'k'd'g'u'q'h'vj g'q'd'l'g'e'v'0'

dUo w'v'k'p't'g's w'g'u'u'o c{ "q'p'n' 'd'g'f'q'p'g'o c'p'w'cm{ 'x'k'c'v'j g'y g'd'uk'g'k'p'v'g't'h'c'g.'C'R'K'c'c'm'u'h'q't' 'u'k'o w'v'k'p'c't'g' "

# 60Tgxkukqp"J kuvqt { "

"

Tgxkukqp"P wo dgt"	F cvg"	Ej cpi gu"O cf g"
300"	32"Ugr v04238"	Tgrgcug"Xgtukqp"
300"	33"Ugr v04238"	Eqttgcvkqpu"vq'hkz<hki wtg"czgu."kgo "pwo dgtu."cpf "hwpevkqp"J cu" Kgo *+0'
300"	36"Ugr v04238"	Eqttgcvkqpu"vq'hkz<kgo "y gli j u"cpf "ceegrgtcvkqpu."cpf "hki wtgu" z.{ "eqqtf lpcvgu0'
400"	23"Qex04238"	Wf f cvgu"b cpwcnly kj "5F "i co g"ej cpi gu"
400"	26"Qex04238"	Eqttgcvkqpu"vq'hkz<eqphrkvpi "r cuuci g"cdqw'cuugo dnf   qpgu." cff "f gvckn'cdqw'i co gff tqr Kgo *+hwpevkqp0'
500"FTCHV"	28"Pqx04238"	Wf f cvgu"b cpwcnly kj "Cnkpeg"i co g"ej cpi gu"
500"	33"Pqx"4238"	Cff u'pgy "i co g'hwpevkqp"cpf "cff kkpnci'cnkpeg"i co g'f gvckn"
500"	37"Pqx"4238"	Cff u'kphqto cvkqp"cdqw/URI GTGU"fqenlpi "hceg"cpf "kgo " f lo gpukqpu"

" "