There's been a lot of discussion about changing the election system in the near future. My proposal is multifaceted but ultimately simple: 36 FPTP constituency seats, 13 top-up list seats (for a grand total of 49 seats), and a ranked choice voting mechanic. Details are below.

FPTP Seats: I've made 36 FPTP seats for players to contest. I do not ultimately expect them to go without revision if adopted after thorough review from the community, but they are a decent baseline. Images of the maps alongside their <u>boundaryassistant.org</u> files can be found <u>here</u>. I listed each local authority (I know they're not all called that in practice, but that's the easiest term I have to define what I mean) within the districts below (if I forgot to list anything, please let me know).

## **Constituencies:**

## Scotland:

Scotland gets three districts. I opted to split them as follows:

- 1) Fife, Aberdeen, and Highlands: It's exactly what it says on the tin. Note that my map-drawing tool did not allow the selection of Orkney, Shetland, or the Outer Hebrides, but those areas are all included in this district. Among my favorite districts that I made.
  - a) Local Authorities: Highland, Aberdeen City, Aberdeenshire, Perth & Kinross, Stirling, Clackmannanshire, Fife, Angus, Moray, Dundee City, Argyll & Bute, Na h-Eileanan Siar, Orkney, Shetland
- 2) Glasgow, Ayrshire, and Dumfries: Glasgow & Lanarkshire combined would have forced the third district to be an awkward "U" shape with Edinburgh & Ayrshire lumped into one, so this made the most sense.
  - a) Local Authorities: Glasgow City, East Dunbartonshire, West Dunbartonshire, Renfrewshire, East Renfrewshire, Inverclyde, North Ayrshire, South Ayrshire, East Ayrshire, Dumfries & Galloway
- 3) Edinburgh, Lanarkshire, and Lothian: The end result of the prior two districts. I think it's plenty suitable.
  - a) Local Authorities: North Lanarkshire, South Lanarkshire, City of Edinburgh, Scottish Borders, Falkirk, East Lothian, Midlothian, West Lothian

#### Wales:

Wales gets two districts. It was divided as follows:

- 1) Cardiff & Swansea: The normal division is the urban south split from the less urban north, and I adhered to this as far as was possible.
  - a) Local Authorities: Vale of Glamorgan, Cardiff, Caerphilly, Merthyr Tydfil, Neath Port Talbot, Swansea, Rhondda Cynon Taf, Bridgend
- Newport & North Wales: Newport and the surrounding areas had to be included for population parity. The Isle of Anglesey (Ynys Mon) is also included in this despite the map tool's refusal to allow its addition.

 Local Authorities: Isle of Anglesey, Gwynedd, Conwy, Denbighshire, Wrexham, Flintshire, Pembrokeshire, Ceredigion, Carmarthenshire, Powys, Monmouthshire, Newport, Blaenau Gwent, Torfaen

## **South West:**

The South West gets three districts. These are my proposals:

- 1) Cornwall, Torbay, and Devon: It's essentially as it says except for the fact that it had to take West Somerset for population reasons.
  - a) Local Authorities: Isles of Scilly, Torbay, Cornwall, Teignbridge, Torridge, East Devon, West Devon, North Devon, Mid Devon, Somerset West & Taunton, South Hams, Torbay, Plymouth
- 2) Bournemouth, Swindon, and Wiltshire: As it says, but note that it stretches as high up as Tewkesbury.
  - a) Local Authorities: Dorset, Bournemouth/Christchurch/Poole, Wiltshire, Swindon, Tewkesbury, Cheltenham, Cotswold
- 3) Gloucester, Somerset, and Bristol: Again, nothing complicated here. The east-west divide rather than north-south was largely due to the sheer size of Bristol.
  - a) Local Authorities: Stroud, Gloucester, City of Bristol, Bath & North East Somerset, Forest of Dean, South Gloucestershire, North Somerset, South Somerset, Mendip, Sedgemoor

#### South East:

The South East gets five districts. I put these together:

- 1) Oxford, Reading, and Milton Keynes: Nothing complex about this district.
  - a) Local Authorities: Milton Keynes, Buckinghamshire, Oxford, South Oxfordshire, Windsor & Maidenhead, Slough, Bracknell Forest, Reading, Wokingham
- Guildford, Basingstoke, and Cherwell: I'd have preferred this district and the Oxford one to straddle each other north/south rather than east/west, but population parity made that hard.
  - a) Local Authorities: Cherwell, West Oxfordshire, Vale of White Horse, West Berkshire, Basingstoke & Deane, Hart, Rushmoor, Waverley, Guildford, Runnymede, Elmbridge, Spelthorne, Surrey Heath
- 3) New Forest, Portsmouth, and Arun: This also includes the Isle of Wight, which can't be selected using the map tool.
  - a) Local Authorities: Isle of Wight, New Forest, Southampton, Test Valley, Winchester, East Hampshire, Eastleigh, Fareham, Gosport, Portsmouth, Havant, Chichester, Arun
- 4) Brighton, Horsham, and Ashford: The east end of SE is divided north-south for population purposes. This is the southern portion.
  - a) Local Authorities: Horsham, Worthing, Adur, Brighton & Hove, Mid Sussex, Wealden, Tunbridge Wells, Lewes, Ashford, Rother, Hastings, Eastbourne, Crawley, Folkestone & Hythe
- 5) Thanet, Medway, and Mole Valley: The north half of the east end.

 a) Local Authorities: Thanet, Dover, Canterbury, Swale, Medway, Maidstone, Gravesham, Sevenoaks, Dartford, Tonbridge & Malling, Tandridge, Reigate & Banstead, Mole Valley

### London:

London gets five districts. Mine are as follows:

- 1) East London: Surprisingly, this one was the hardest to find a configuration for.
  - a) Local Authorities: Havering, Barking & Dagenham, Newham, Greenwich, Bexley, Bromley
- 2) North London: Self-explanatory
  - a) Local Authorities: Redbridge, Waltham Forest, Hackney, Haringey, Enfield, Barnet
- 3) West London: Dips a bit more south than some would like, but it's overall pretty reasonable
  - a) Local Authorities: Harrow, Hillingdon, Hounslow, Brent, Ealing, Richmond upon Thames
- 4) South London: The East had to come a bit down south, so the South is a bit west-leaning (not enough to call it "South West", though)
  - a) Local Authorities: Kingston upon Thames, Merton, Wandsworth, Lambeth, Sutton, Croydon
- Central London: The North and South had to take areas that jut slightly towards the center, creating a narrow zone connecting two halves. Not a huge deal, but it looks a little bit funky.
  - a) Local Authorities: Hammersmith & Fulham, Kensington & Chelsea, Westminster, Camden, Islington, City of London, Tower Hamlets, Southwark, Lewisham

# West Midlands:

The West Midlands get three seats. The following are proposed:

- 1) Birmingham, Dudley, and Walsall: Literally exactly as written
  - a) Local Authorities: Birmingham, Dudley, Walsall
- 2) Coventry and Herefordshire: Essentially the southern West Midlands
  - a) Local Authorities: County of Herefordshire, Solihull, Coventry, North Warwickshire, Nuneaton & Bedworth, Wychavon, Stratford-on-Avon, Rugby, Warwick, Bromsgrove, Wyre Forest, Worcester, Malvern Hills
- 3) Wolverhampton, Shropshire, and Staffordshire: The northern half of the West Midlands
  - a) Local Authorities: Shropshire, South Staffordshire, Stafford, Telford & Wrekin, Wolverhampton, Lichfield, Cannock Chase, Newcastle-under-Lyme, Tamworth, East Staffordshire, Staffordshire Moorlands, Stoke-on-Trent

# **East Midlands:**

The East Midlands get three seats. Here's my take on it:

1) Derby & Ashfield: Functionally the northwest part of the East Midlands

- a) Local Authorities: High Peak, Derbyshire Dales, South Derbyshire, Erewash, Broxtowe, Nottingham, Ashfield, Chesterfield, Bolsover, North East Derbyshire, Amber Valley, Derby
- 2) Mansfield, Kesteven, and Charnwood: The eastern section of the East Midlands
  - a) Local Authorities: Bassetlaw, Mansfield, North Kesteven, South Kesteven, Charnwood, Rushcliffe, Gedling, Newark & Sherwood, Lincoln, West Lindsey, East Lindsey, Boston, South Holland, Rutland, Melton
- 3) Northamptonshire & Leicester: Southwestern piece of East Midlands
  - a) Local Authorities: North West Leicestershire, Hinckley & Bosworth, Leicester, Blaby, Harborough, West Northamptonshire, North Northamptonshire, Oadby & Wigston

# **East of England:**

The East of England region gets three seats. I propose the following:

- 1) Luton, Bedford, and Epping Forest: The closest thing to a dense constituency that this region has.
  - a) Local Authorities: Dacorum, Three Rivers, Watford, Hertsmere, Luton, Central Bedfordshire, Bedford, North Hertfordshire, East Hertfordshire, Stevenage, Welwyn Hatfield, St Albans, Broxbourne, Epping Forest, Harlow
- 2) Thurrock, Colchester, and East Suffolk: Suffolk had to be split for population reasons
  - a) Local Authorities: Thurrock, Basildon, Rochford, Maldon, Castle Point,
     Southend-on-Sea, Chelmsford, Brentwood, Uttlesford, Braintree, Babergh,
     Colchester, Tendring, Ipswich, East Suffolk
- 3) Peterborough, Cambridge, and West Suffolk: The other parts of Suffolk are here.
  - a) Local Authorities: Huntingdonshire, Peterborough, Cambridge, South Cambridgeshire, East Cambridgeshire, West Suffolk, Mid Suffolk, King's Lynn & West Norfolk, Fenland, South Norfolk, Great Yarmouth, North Norfolk, Norwich, Broadland, Breckland

# **North West:**

The North West gets four seats. The following is what I drew up:

- 1) Blackpool and Carlisle: The northernmost piece of the North West.
  - a) Local Authorities: Carlisle, Eden, Copeland, Allerdale, Barrow-in-Furness, South Lakeland, Lancaster, Ribble Valley, Wyre, Blackpool, Preston, South Ribble, Blackburn with Darwen, Rossendale, Burnley, Fylde, Pendle
- 2) Manchester and Rochdale: Very simple district
  - a) Local Authorities: Bolton, Bury, Rochdale, Manchester, Salford, Trafford, Oldham
- 3) Liverpool and Warrington: Slightly awkward shaping along with the 4th district, but not to the extent where it looks out of place
  - a) Local Authorities: Liverpool, Sefton, West Lancashire, Chorley, Wigan, St Helens, Knowsley, Warrington
- Wirral, Cheshire, and Stockport: Sort of looks like the southern piece of West Virginia, but I digress

 a) Local Authorities: Wirral, Cheshire West & Chester, Cheshire East, Halton, Stockport, Tameside

## Yorkshire & The Humber:

Yorkshire & The Humber gets three seats. Here's what I have for that:

- 1) Leeds, York & Northwest Yorkshire: It's what it says it is.
  - a) Local Authorities: Selby, York, Bradford, Leeds, Harrogate, Craven, Richmondshire
- 2) Sheffield, Wakefield, and Kirklees: A very dense district in southwestern Yorkshire
  - a) Local Authorities: Sheffield, Barnsley, Kirklees, Calderdale, Wakefield
- 3) Hull, Rotherham, and East Yorkshire: Stretches slightly west of what I'd like, but population constraints required it
  - a) Local Authorities: Rotherham, Doncaster, North Lincolnshire, North East Lincolnshire, East Riding of Yorkshire, Ryedale, City of Kingston upon Hull, Hambleton, Scarborough

### North East & Northern Ireland:

Each gets one seat, and no maps need to be drawn.

List seats: I propose we have 13 national top-up seats to supplement the FPTP seats. This will maintain a very competitive nature for FPTP seats while ensuring that people who put in the work aren't as likely to be boxed out. I have two ideas for how we can execute this.

Idea 1: Parties submit an ordered list of candidates to be awarded seats. Candidates who win constituency seats are crossed off, and the top remaining candidates are awarded seats up to the threshold of list seats won. Candidates who are running in a constituency but who are not provided a space on the party list will be treated as if they were appended to the very bottom of the list (in order to avoid someone being left out by mistake). If multiple candidates are in this category, the order between them at the bottom is to be determined randomly. Candidates cannot run on only a party list (they must also run for a constituency). This would allow for all seats to continue to be owned by MPs.

Idea 2: List seats are awarded to parties rather than to individuals. The party can select whomever it chooses to occupy the seat as seen in original MHOC. This would be the option if we wanted to reduce the possible damage from defections to parties (as some have floated), but I admittedly prefer Idea 1.

Here are two examples of how this could occur (calculator insight provided by Lily, who is far more capable of number-crunching than I could ever dream of being):

Example 1:

PARTY	TOTAL VOTES	TOTAL FPTP	<b>REGION MULT</b>	effective votes	seat entitlement	list seats won
CON	6,265,453	9	1	6265453	13	4
LAB	7,136,799	11	1	7136799	15	4
LD	4,639,639	7	1	4639639	10	3
GRN	1,623,791	2	1	1623791	3	1
REF	1,484,027	3	1	1484026.5	3	0
PC	314,778	1	2.25	708249.375	1	0
ALBA	336,686	1	1.5	505028.25	1	0
SDLP	131,069	1	3	393207	1	0
APNI	131,801	1	3	395403	1	0
DUP	125,992	0	3	377974.5	1	1
SNP	0	0	0	0	0	0
WPGB	0	0	0	0	0	0
TOTAL	22,190,033	36	0	0	49	13

These vote totals are exactly half of the vote totals received in GEI (SNP and WPGB, while present in the image for testing purposes, are clearly zeroed out and do not impact the seat totals in any way). The FPTP seat counts are identical to the actual election results. Regional parties are given a boost (1.5x for Scotland, 2.25x for Wales, and 3x for Northern Ireland). The list calculator is using the 1.0 modified Saint-Lague as its proportional base. Given the nature of our real results being fully proportionalized, the list seats mostly pool to the top (with the exception of DUP, which gets one given how close it was).

Example 2:

PARTY	TOTAL VOTES	TOTAL FPTP	REGION MULT	effective votes	seat entitlemen	list seats won
CON	7,105,443	11	1	7105443	14	3
LAB	5,590,876	9	1	5590876	11	2
LD	4,907,491	7	1	4907491	10	3
GRN	1,875,036	2	1	1875036	3	1
REF	1,010,335	2	1	1010335	2	0
PC	295,118	1	2.75	811574.5	1	0
ALBA	409,002	1	1.5	613503	1	0
SDLP	108,405	0	4.5	487822.5	0	0
APNI	99,506	0	4.5	447777	0	0
DUP	114,915	1	4.5	517117.5	1	0
SNP	183,073	0	1.5	274609.5	0	0
WPGB	2,990,836	2	1	2990836	6	4
TOTAL	24,690,036	36	0	0	49	13

These vote totals are not based on anything specific for this one, and use regular D'Hondt to calculate list allocations. Parties exclusive to one of the devolved regions are given a boost

(1.5x for Scotland, 2.75x for Wales, and 4.5x for Northern Ireland). WPGB was given a high vote tally to see the end result of a party not present last time being strong (incase we do end up allowing new parties at some point in the future), and this seems to work well for that. WPGB is rewarded for their strong effort, but isn't going to supersede any party that wins the constituencies at a greater rate.

I opted to provide region multipliers so that parties only eligible to run in one region don't get totally boxed out of list seats. The formulas generally rely on total votes received, and one-region parties are naturally disadvantaged in this way, so I think it's fair to give them a bit of a step-stool for this purpose.

Ranked choice voting: I think it'd be incredibly fun as a game mechanic if parties could negotiate ranked-choice positioning to try and get the upper hand. It would make elections more strategic, would create extra things for parties to bargain over, and it'd help encourage cooperating across

party lines (which is good for the game; having people only talk to their own makes it so people get clique-y).

Here's one example:

CON: 38.6% LAB: 32.9% GRN: 28.5%

Greens come in last, and under pure FPTP, Tories would take the seat. However, if we use ranked-choice, we can do something like the following (parties should have to list all parties somewhere on the list imo just to make the calculator have an easier time computing what happens, but perhaps only one regional party per region).

GRN list for parties in RCV:
LAB (1st Position, 67% transfer)
SDLP (2nd Position, 60% transfer)
PC (3rd Position, 57.5% transfer)
SNP (4th Position, 55% transfer)
WPGB (5th Position, 52.5% transfer)
LD (6th Position, 50% transfer)
CON (7th Position, 45% transfer)
REF (8th Position, 40% transfer)

GRN endorses LAB on ranked-choice list above CON  $\rightarrow \frac{2}{3}$  of GRN votes transfer to LAB, remainder split equally between parties

Result:

CON: 38.6% + 4.7% = 43.3%

LAB: 32.9% + 19.1% + 4.7% = 56.7%

In this circumstance, Labour wins via RCV, meaning the strategy between the parties paid off. Parties wouldn't have to artificially limit the number of candidates they run just to cooperate with others using this, which I think would be pretty awesome.

I hope this is of some utility to the sim, and I hope we can agree on a way to make this happen. If I messed any calculations up or otherwise butchered something here, please let me know so I can fix it. Thank you for reading this!