THE AEINRST PROBLEM

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Over the last three decades, Word Ways has presented various exhaustive lists of transposals of particular sets of letters. The most fecund group of transposals is formed from the eight letters AEINRST. The main article listing the various transposals was authored by Dmitri Borgmann, and appeared in the November 1976 Word Ways. There has been various follow-on correspondence published at other dates, the most substantial of which was by Jeff Grant, and the February and May 1994 Word Ways. A complete gathering of the 157 AEINRST transposals appears in Ross Eckler's excellent Making the Alphabet Dance.

Other exhaustive lists have been published for the following groups of letters (authors and Word Ways publication dates also shown):

AER Darryl Francis Feb 1971, Jeff Grant Nov 1987
AELS Darryl Francis Feb 1971
AEST Jeff Grant Nov 1987
AELST Darryl Francis Feb 1971, Jeff Grant Nov 1987
AERST Jeff Grant Nov 1987
EILSV Darryl Francis Feb 1993
AEIPRST Jeff Grant Feb 1991
ACEINORST Darryl Francis Aug 1981
AEILNORST Darryl Francis Nov 1989
AEIMNORST Darryl Francis Nov 1990
AEILMNO RST Dmitri Borgmann Feb 1986

It's interesting to note that, apart from Jeff Grant's foray into AEIPRST transposals, which was only part of a wider-ranging article, there have been no serious attempts to find exhaustive lists of transposals from given sets of six and seven letters. Jeff Grant commented similarly in his February 1994 Word Ways article.

I felt that it was time to remedy this situation, at least in part. I could have built on Jeff Grant's AEIPRST list, but I decided to start from scratch with a different set of letters. I chose to search for transposals of the seven letters AEINRST. The remainder of this article is an examination of what's possible with these seven letters.

First off, I decided to check the extent of AEINRST transposals in previously published lists. Edwards' and Ball's anagram dictionaries contain a paltry 2 and 3 specimens, respectively, while Newby's extensive work contains an impressive 34! However, all these are dwarfed by the total collection presented here in this article.
3 Ball, The Nuttall Dictionary of Anagrams (undated)
6 Chambers Anagrams (1994)
10 Official Scrabble Words (1994): OSW
14 Eckler, Making the Alphabet Dance (1996) # in listing
34 Newby, Pears Advanced Word-Puzzler's Dictionary (1987) * in listing

It has proved very difficult to identify what should and should not be admitted to my list here. There are various types of marginal terms, which some readers may be happy to accept, and others would rather see excluded. These marginal terms are categorised as follows (some items are described by a combination of these categories).

1. The list contains a number of plural forms of proper names. For example, ARETINS is given as the plural of the proper name ARETIN, with the inferred meaning of "people called Aretin".

2. The list contains a number of forms ending in -IN', a shortened form of -ING. For example, TASERIN' is given as a shortened form of TASER-ING. Such words are invariably not dictionary listed, but are formed by analogy with items such as READIN' and WRITIN', found in some dictionaries. These are labeled "inferred".

3. The list contains a number of so-called "citation form plurals". This is where a plural form (ending in -S) is created from a word that is not a noun or a verb. This usage could be employed to refer to printed examples of the word concerned. For example, EIRANT is an adjective, but EIRANTS has been included as a citation form plural. One might wish to refer to "three or four EIRANTS". These are labeled "cfp".

4. The list contains a number of multi-word terms. Some of these terms are dictionary entries. For example, TIN EAR is a dictionary main entry, so it seems quite reasonable to include its plural form, TIN EARS. However, some of the multi-word terms included are phrases which appear in dictionary entries (definitions or illustrative quotations), but where there is no real logical connection between the constituent words. For example, A RENT IS is a sequence of three words appearing in the Oxford English Dictionary. Many readers will probably be uncomfortable about the inclusion of such items. Should I include the similar three-word phrase IS A RENT if I could find it published anywhere, not just the OED? Should I include it even if I can't find it in print but can place it in a suitable English sentence ("IS A RENT of $1000 dollars a week excessive?")? Non-dictionary phrases are labeled "NonDic" and followed by the OED headword and date of citation.

5. The list contains a number of verb forms ending in -EST. This is an obsolete verb form that I have assumed could be applied to any verb. For example, ARINE is a verb, and I have assumed the possible existence
of a form ARINEST. It's questionable whether the ending -EST can be applied to all verbs. Would it be reasonable to assume an -EST form for a verb that is distinctly modern in origin? Probably not, but it's difficult to draw the line. These words are labeled "inferred".

6. A number of entries in the list contain punctuation marks, such as accents, full stops and the like. The extreme case of IS, AREN'T contains a comma, an apostrophe and a space. Does this matter? Should it be counted as a separate entry if the solid form exists?

7. The list contains a number of foreign words that appear for one reason or another in a major English-language dictionary. For example, the French word ASTENIR appears in the etymology of the word ABSTAIN in the OED. This is such a superb example that I hesitate to exclude it from the list. Of course, one could take the view that although the word is foreign, the inclusion is justified on a citation form basis. For example, "the French word ASTENIR appears in an OED etymology".

8. The list contains a number of foreign words taken from a variety of foreign-language dictionaries, mainly French, Italian and Portuguese. Am I justified in including these? Many readers will baulk at these, but again, it can be argued that their inclusion is justified on a citation form basis. These words are labeled with their language.

On balance, I have decided to include all the AEINRST variants that I could find. If individual readers wish to ignore various subsets, that is their prerogative—let them create shorter lists which satisfy their personal criteria!

AERTIN'S Web 1, cfp of aertin', inferred from aerting, pres part of aert
AIRNEST ConSc, 16–17cen Scots variant of earnest
ANESTRI# Web 3, pl of anestrum (a period of sexual quiescence)
ANTERIS Oxf (make 1508q "That maid the anteris of Gawane"), pl of anter (adventure?)
ANTIERS NUC(18), pl of surname of 5 authors

ANTSIER* Web 3, comparative of antsy
A RENT IS NonDic (equator 1900)
ARESTIN Oxf (arrest 1460q "The kyng...ded his officeres arestin...")
ARETINS DictUB, pl of surname of 5 individuals
ARINEST Oxf, inferred from arine (to touch)

ARISENT French, 3rd person pl of ariser (to touch a sail)
ARSTEIN NUC(22), surname of either of 2 authors
ARTIENS Old French, cfp of artien (one skilled in the arts) see Oxf etymology of arceter
ARTINES ArchD, King of the Medes, succeeding Artaeus
AS INERT NonDic (discarnate 1901)
A SINTER NonDic (sinter 1973)
AS NITRE NonDic (body 1831)
ASTENIR Old French, later abstenir see Oxf etymology of abstain
ASTERIN# Web 2, a pigment of the China aster
A STRINE NonDic (strine)
ATERIN'S Web 1, cfp of aterin', inferred from atering, from ater (sting)

ATIRENS Str-ME, cfp of atiren (to attire)
ATRINES OED, 3rd person sing of obs verb atrine (to touch)
A TSERIN NonDic (tserin, var of dzeren, a Mongolian gazelle)
EARNIST Oxf (block 1585 "I tuke earnist and willing panis to blok it")
EARNITS* Eng-DD, pl of earnit (pig-nut) see earth-nut

E ARTINS NUC(23), pl of Emil Artin, mathematical author
EAST'LIN' Oxf, inferred from west'ring (westerling 1747 "And Wight who
checks the west'ring Tide")
EIRANTS Oxf, cfp of adj eirant (erroneous form of haurient)
ENITRAS Cent, pl of Enittra (Saharan tribe in area of Niger and Mali)
ENRISTA Portuguese, 3rd person sing of enristar (to prepare to attack)

ENTARIS Hand, pl of Entari ronnnon (name for Cherokee Indians)
ENTRAIS ConSc, 15-16cen Scots variant of entry
ERANIST# Web 2, a member of a club
ERNSTIT DictF, a genus of plants
ESTRAIN* Oxf, to bind tightly

-ESTRIAN Oxf, suffix form palaestrian, -estrian
INARTES Oxf (unskill 1611 "Inarte, vnartness, ignorance, vnskill")
INERT AS NonDic (inert 1876 "He is rather timid as a Minister and
inert as a statesman")
IN RATES NonDic (indexation defin "An adjustment in rates of payment")
INSEART French, 3rd person sing imperfect subj of inserer (to insert)

INSERTA* Dorl, in term variola inserta (smallpox by inoculation)
INSTARE Oxf (instance 1611 "Instare, to instance, to vrge, to presse
with diligence, to importune")
IN TEARS Web 2, term listed at tear
INTEST; A NonDic (interior defin "One who inters; a burier")
IS, AREN'T NonDic (indoors 1925 "But the point is, aren't there better
occupations for a man of sense than indoor sports...?")

ISENTAR Portuguese, infinitive verb (to exempt)
ISN'T ARE NonDic (hyper- 1940 "hyper-colloquial...when too many don't
isn't are substituted for do not, is not, etc.")
ITS NEAR NonDic (Quiché 1968 "It is also in Quiché and its near rela-
tives...")
IT'S NEAR NonDic (just 1815 "As it's near the darkening, sir wad ye...")
NAITRES French, cfp of verb naitre (to be born), in née etymology

NARIEST Eng-DD, inferred superlative of nary (stout, strong)
NASTIER# Web 3, comparative form of nasty
NATRIES ChamS, cfp of adj natrie (ill-tempered, grumbling)
NEAR ITS NonDic (overhang defin "...when the cone is insufficiently damped near its resonant frequency")
NEAT, SIR NonDic (snip 1853 "Very neat, sir; would look remarkably well on you, sir")

NERITAS* Web 3, pl of nerita (a mollusc)
NITER, AS NonDic (niterated 1678 "The burning a matter to Ashes...by the help of Niter")
NITRE AS NonDic (nitrification defin "reference to the use of nitre as...")
NITS ARE NonDic (well-hoarded 1786 "The auld Guidwife's weel-hoarded nits Are round an' round divided")
RAINEST Oxf (mollify 1624 "Thou rainest vpon vs and yet doest not...")

RAINE ST Geog, name of street in El Postal District of London
RAIN SET NonDic (wet 1859 "The rain set in...so heavily, that in half an hour I was wet to the skin.")
RANIEST Oxf, inferred superlative of 16cen Scots rany (rainy)
RANISTE Italian, female backstroke swimmers
RANITES* Oxf, pl of ranite (greyish-black mineral)

RANTIES* EngDD, pl of Northern Ireland ranty (rowan-tree)
RANTYSE* Oxf, inferred variant (rantize 1644 "To the intelligent reader baptised or rانتised. Thou must excuse me for this pretty new stamped word...It is not a week since I first met with it")
RASENTI Italian, 2nd person sing of rasentare (to brush or skim past)
RASETIN' Crai, inferred form of raseting, Scots variant of resetting
RATEIN'S Oxf, pl of ratein', inferred variant (rateing 1667 "I was witness of a horrid rateing, which Mr Ashburnham did give him")

RATES IN NonDic (conference 1970 "Member lines...announce that freight rates in the eastbound trade will be increased by 15 per cent")
RATINES*# Web 3, pl of ratine (a type of fabric)
REASTIN' Oxf, inferred form of reasting, pres part of reast (be rancid)
REATINS Oxf (yield 1598 "The Reatins...no way yeelding that the mouth of the lake Velinus should be dammed vp") variant of Rhetians
REITANS Times, pl of Reitan, a place in Sweden

RENITAS Portuguese, 2nd person sing subjunctive of renitir (to resist)
RENAISA French, 1st person sing imperfect of renter (to endow)
RENT IS A NonDic (rent 1820 "Where the rent is a large sum, the tenant should have it in readiness before sunset")
RESAINT NonDic coinage, to make a person a saint a second time
RESATIN NonDic coinage, to give a satiny finish a second time

RESIANT*# Web 3, adj meaning "resident"
RESINAT* Dorl, trademark used for resin preparations
RESTAIIN*# Web 3, to stain again
RESTIAN Old Saxon for rest (see Oxf etymology)
REST IN A NonDic (berth 1838 "If you travel in the night you go to rest in a pleasant berth")
RESTINA Italian, a small string of onions, beard of corn or fishbone, inferred from resta
RETAINS*# Web 3, pl of retain
RETINAS*# Web 3, pl of retina
RETSINA*# Web 3, a wine of Greek origin
RIANTES Oxf, cfp of adj riante (smiling, mirthful, cheerful, gay)

RISENTA Italian, imperative of risentire (to hear again, to listen again)
RITES; AN NonDic (exorcism defin "The action of exorcizing...by adjuration or the performance of certain rites; an instance of this")
SAINTER Rean, a British surname
SAINTRE Oxf (effecter 1863 "Had the translation of Saintré to be entered on afresh, it is not...certain that I had been the effecter")
SARENTI Times, part of the placename Monte Sarenti, in Italy

SARIENT* Oxf, obs 17cen variant of sergeant
SARTINE DictUB, surname of a French statesman
SATINER French, to satin, or give wallpaper a glossy surface (see Oxf etymology of satin)
SENTIRA French, 3rd person sing future of sentir (to feel pain or cold)
SERIANT* Oxf, obs 13-17cen variant of sergeant

SERINAT French, 3rd person sing imperfect subjunctive of seriner (to teach a canary to sing)
SERTAIN* Oxf (certain c1400 Hit semes more certain, sothely, to me")
SINETAR Portuguese, to mark with a signet
SINTER, A NonDic (sinter 1958 "Sinter, a term used in reference to...")
SIT NEAR Oxf (sit 14. In fig. phrases: a. With nigh, near, close to, at, etc.: To affect one deeply)

STAERIN' EngDD, inferred form of staering, pres part of staer (to stare)
STAINER*# Web 3, a worker who applies a stain
STANIER Oxf, inferred comparative of stany or stanie
STANIER Oxf (laugh 1975 "M Stanier Singing Time 255 So long as you're a jump ahead you're laughing")
STARE IN NonDic (gape defin "To stare in wonder or admiration")

STARNIE*# Web 3, a little star
STEARIN*# Web 3, an ester of glycerol and stearic acid
STEINAR Times, a place in Iceland
S. TERIAN NUG, entry referring to S. Ter-terian, author of a book on construction industry management in Russia
STIARNE Oxf, 12cen Kent form of stern

STIERAN Oxf, 12cen form of steer
STRAEN Chams, made of straw
STRAEIN' Oxf, inferred form of straewing, pres part of strae (to straw)
STRAINE* Oxf, 15-17cen form of strain
STREAIN' Oxf, inferred form of straening, pres part of strea (to straw)

STRENIJA Oxf (latticed 1862 "The Latticed Heath (Strenia clathrata)"
TAERIN'S EngDD, cfp of taerin', inferred form of taering, pres part (in Cornish dialect) of tear
TAIRENS Cent, places such as Tairen (now Dairen) in Manchuria
TANIES* Web 3, pl of tanier, any of several plants having edible roots
TANISER French, to treat with tannin

TANRIES Oxf, inferred pl of tanry (tannery 14. "And I shall tech hym, as I can...Tyll it be abill of prentyse to crafft of tan[e]ry")
TAERIN'S EngDD, cfp of taerin', inferred form of tareing, in the phrase tareing-tub, a type of coal-mining tub used for measuring coal
TARES IN NonDic (common 1705 "A mixture of Tares in this Common-field of the World")
TARIENS Ox, pl of tarien, 14–15cen form of tary (to provoke or worry)
TARSIEN French, tarsal

TAESIN' Ox, inferred form of tasering, pres part of taser
TEARNS ConSc, pl of tearin (an angry reproof)
TEARS IN NonDic (tack 1961, "There were tears in her eyes as Sebastian's second ball tocked against the peg"); also part of verbal phrase tear in pieces
-TEINARS Ox, cfp of the word-ending -teinar (see maintainer)
TÉNIRAS Times, places such as Ténira, in Algeria

TERAINS Old French, cfp of terain (see Ox etymology of terrain)
TERRAINS Cent, places such as Terian Coast, part of Lapland (now Russia)
TERRAINS NUC(587), persons like the author Zoltan Ternai of Hungary
TERRIAN NUC(587), surname of Tommaso R Tersian
TERSINA Italian, a little terse, inferred from terso

TIN EARS Web 3, pl. of the phrase tin ear
TINS ARE NonDic (vacuumize 1939 "It sometimes happens that some of the tins are not quite vacuumized")
TIRANNE* Ox, pl of 16cen tirane (tyrant)
TIREANS Ox, cfp of Tirean (scarf 1640 "Slitely shadowed or scarf with a thin tinsell or Tirean vaile")
'TIS NEAR NonDic (form 1678 "I formed the danger greater then it was, And now 'tis near, 'tis lessened")

TRAEIN'S Scot, cfp of traein', inferred form of pres part traeing, from trae (Orkney variant of thrae)
TRAINE StrME, pl of traien (to betray)
TRAINES* Ox, pl of 15–17cen traine (a train)
TRAISEN Times, a river in Austria
TRANAILS Portuguese, 2nd person pl pres subjunctive of tranar (to swim)

TRANSEI Portuguese, 1st person sing preterite of transar (arrange to)
TRANSIE French, feminine of transi (paralysed by a strong emotion)
TREINAS Portuguese, 2nd person sing indicative of treinar (to train)
TSARIEN French, Tsarian (belonging to a Tsar)
TSARINE French, tsarina
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EngDD  English Dialect Dictionary
Geog  Geographia Greater London Atlas
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NUC(vol)  National Union Catalogue
Rean  Reaney, A Dictionary of British Surnames
Scot  Scottish National Dictionary
StrME  Stratemann's Middle-English Dictionary
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Web 1  Webster's New International Dictionary (1st Edition)
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Web 3  Webster's Third New International Dictionary