Part III (selected puzzles)

1. Word Snail .......................... 50
2. Crypto .............................. 70
3. Word Search ........................ 80
4. Star Battleships ....................... 80+60
6. Inequality Magnets .................... 100
7. Kakuro ............................... 100

Total: 540 points + time bonus (10 pts/minute)
1. Word Snail (50 points)

Enter all the given words into the grid, so they can be read along the spiral. (The words are not listed in order). Consecutive words must be separated by at least one empty cell. No letter may be repeated within a single row or column. Some letters are already given.
2. Crypto (70 points)

Each letter has been assigned a different value from 1 to 16 (1 to 6 in the example). The total values of various words are given. Find the value of each letter.

BEIJING = 68
GUANGZHOU = 73
HANGZHOU = 48
JINAN = 30
NanjING = 46
SHANGHAI = 47
SHENZHEN = 44
Suzhou = 53
TianJIN = 49
Wuhan = 32
Wuxi = 57
XiAMEN = 55
Xian = 35
3. Word Search (80 points)

22 of the 25 words in the list can be read in the grid (along straight lines going in any of the eight directions horizontally, vertically or diagonally). Find the words that are not in the grid.

香 龙 吉 大 莞 京 深 港 深 京 哈 连 北 京 汉 武 南 江 东 夏 长 海 台 都 州 滨 春 门 天 上 郑 成 沈 岛 襄 津 宁 庄 阳 苏 青 南 庆 州 波 安 无 济 明 昆 重 州 西 锡

上海 (Shanghai) 深圳 (Shenzhen) 北京 (Beijing) 广州 (Guangzhou) 天津 (Tianjin)
南京 (Nanjing) 杭州 (Hangzhou) 西安 (Xi'an) 沈阳 (Shenyang) 武汉 (Wuhan)
苏州 (Suzhou) 大连 (Dalian) 昆明 (Kunming) 无锡 (Wuxi) 青岛 (Qingdao)
济南 (Jinan) 哈尔滨 (Harbin) 郑州 (Zhengzhou) 济南 (Jinan) 重庆 (Chongqing)
4. Star Battleships

Place one copy of the fleet shown inside each black-edged region of the grid. The ships do not touch, not even diagonally, and cannot cross the boundaries of the regions. The number of ship segments in each row and column is indicated outside the grid.
6. Inequality Magnets  

The grid is made up of magnetic and non-magnetic plates. Each magnetic plate has two halves: one positive (+) and one negative (−). Halves with the same symbol cannot be horizontally or vertically adjacent. The numbers outside the grid indicate how many magnetic halves of each kind can be found in that row or column. Some clues have been erased, but the given equality or inequality relations must hold. Find the polarity of all magnets.
7. Kakuro (100 points)

Enter a single digit from 1 to 9 into each empty square of the grid, so that the digits in each series of white squares add up to the number given in the gray-colored cell at the top or to the left. A number above a diagonal bar refers to the digits to be filled in to the right of that cell. A number under a diagonal refers to the digits to be filled in below that cell. The digit 0 is not used, and no digit is ever repeated within a group.

![Kakuro Grid]

French WPC Test 2013
Part III