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Several "Wanted" numbers were factored on Page 93. From the old wanted lists issued with Page 89 in March, 2003, Kruppa factored the "More Wanted" number 3,412+ by the Special Number Field Sieve.

From the wanted lists issued with Page 92 in January, 2004, Silverman factored the "Most Wanted" number 2,653+ and Leyland and Wackerbarth factored the "Most Wanted" number 5,302+, both by SNFS. CWI factored the "More Wanted" number 12,206+ and Dodson and CWI factored the "More Wanted" number 2,671+, both by SNFS.

Several "Smaller-but-Needed" numbers were factored on Page 93. Misar factored 7,355− by the Elliptic Curve Method. Another four were factored by the General Number Field Sieve. Leyland factored 6,372+, Irvine factored 2,1534M, Hansen and CWI factored 2,933+, and Irvine, Franke, Kleinjung and Bahr factored 2,1450L.

No new wanted lists are issued at this time. Keep working on the lists of Page 92.

CWI means Peter Montgomery and Herman te Riele at the Centrum voor Wiskunde en Informatica in Amsterdam. ECMNET means Paul Zimmermann, Alex Kruppa, Torbjörn Granlund, Michel Quercia, Witold Grabysz, Vilmar Trevisan and many helpers who use the GMP-ECM program of Kruppa and Zimmermann.

There were three new champions for factoring Cunningham numbers on this page. Recall that a champion is one of the best two records in its class. The factorization of the C248 of 2,1642M was a new champion for SNFS, both by size and by NFS difficulty. The factorization of the C164 of 2,1826L was a new champion for GNFS. The P57 factor of 11,260+ was a new champion (second place) for the Pollard $p - 1$ method.

The first holes done on Page 93 are in # 4921, # 4926, # 4941 and # 4955. No second or third holes were done on Page 93. The only fourth hole done on Page 93 is in # 4946. The only fifth hole done on Page 93 is in # 4961.

The smallest new factor reported on Page 93 has 34 digits. See # 4935. The largest number factored on Page 93 has 311 digits. See # 4932.

See the URL `http://www.prothsearch.net/fermat.html` for Wilfrid Keller's list of all known Fermat factors.

See the URL `http://www.utm.edu/research/primes/largest.html` for Chris Caldwell's list of all of the largest known Mersenne primes.

See the URL `http://www.cerias.purdue.edu/homes/ssw/cun/index.html` for the online Cunningham book. The full text is available at the AMS web site: `http://www.ams.org/online_bks/conm22` .

If your address changes, please tell me.

Keep the factors coming!

Sam Wagstaff