

KIC 005905179

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
005905179-01	OBS	No	20.255213	147.011931	73.4	19.943	7.3	4.2	2.16	5667	2.12	188.23

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005905179-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

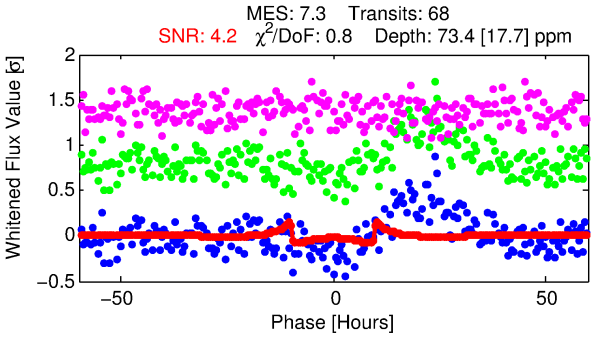
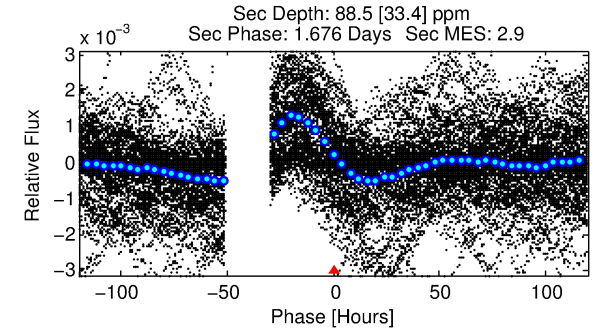
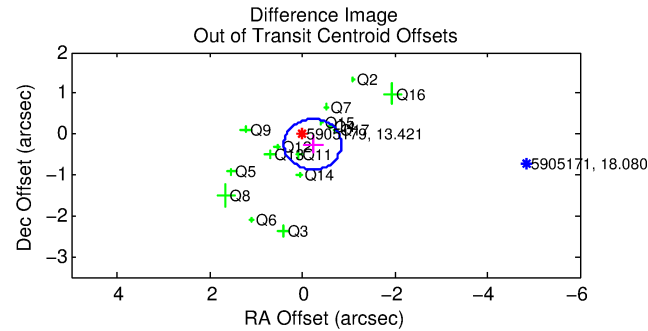
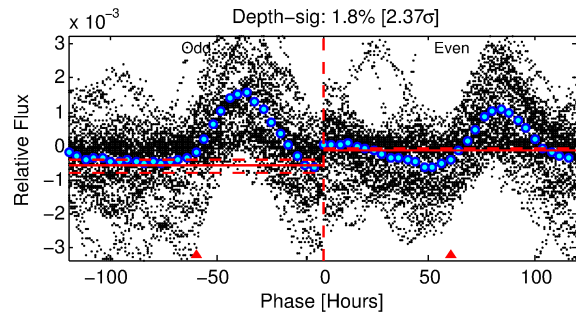
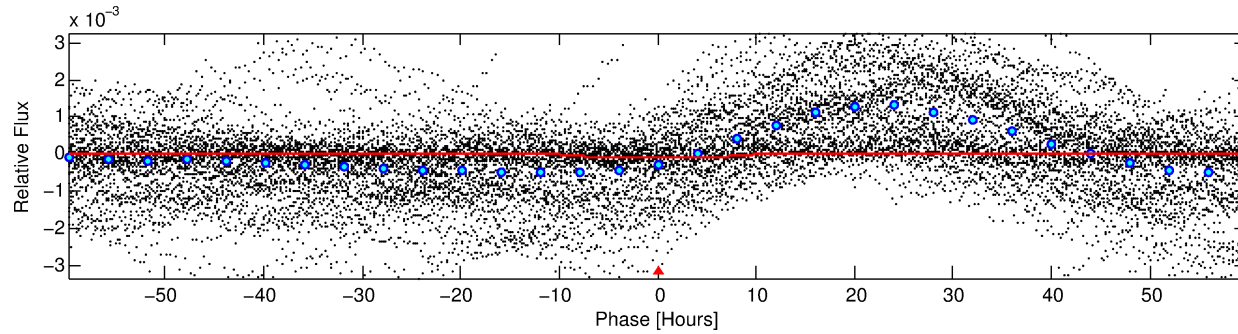
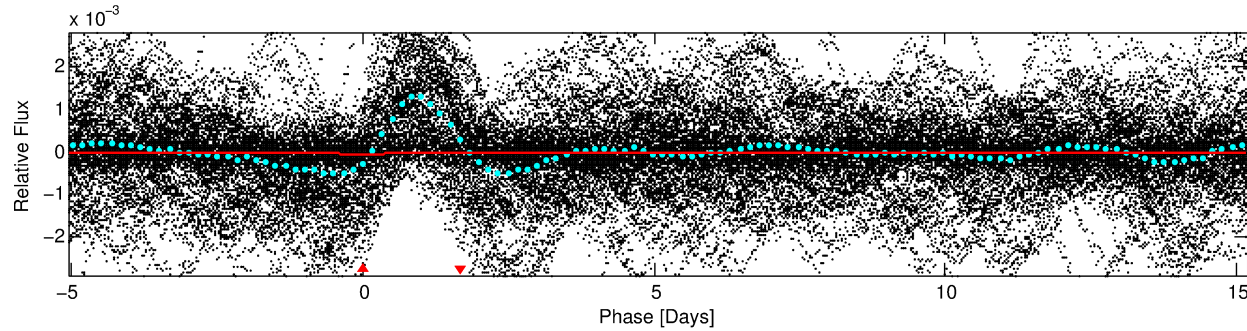
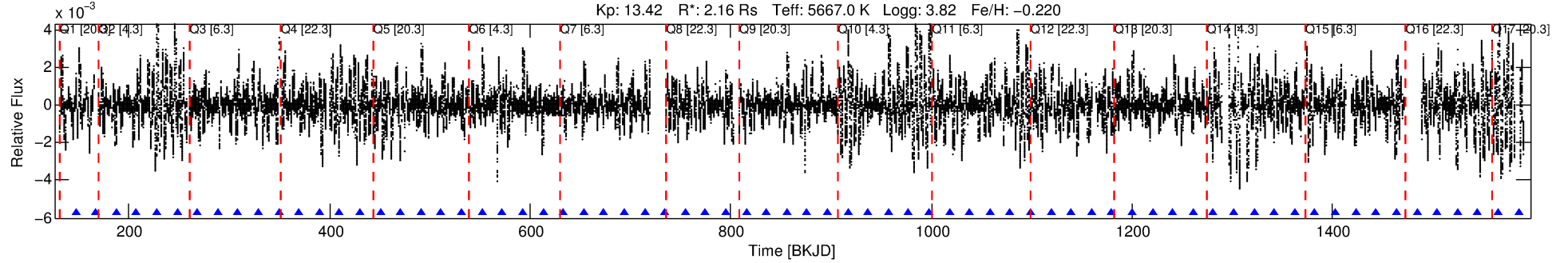
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005905179-01

No Significant Match Found

DV One-Page Summary

KIC: 5905179 Candidate: 1 of 1 Period: 20.255 d



DV Fit Results:

Period = 20.25521 [0.00046] d
Epoch = 147.0119 [0.0185] BKJD
Rp/R* = 0.0090 [0.0016]
a/R* = 4.21 [2.08]
b = 0.86 [0.16]
Seff = 188.23 [194.65]
Teq = 944 [244] K
Rp = 2.12 [1.22] Re
a = 0.1511 [0.0911] AU
Ag = 247.21 [283.92] [0.87 σ]
Teffp = 5790 [773] K [5.98 σ]

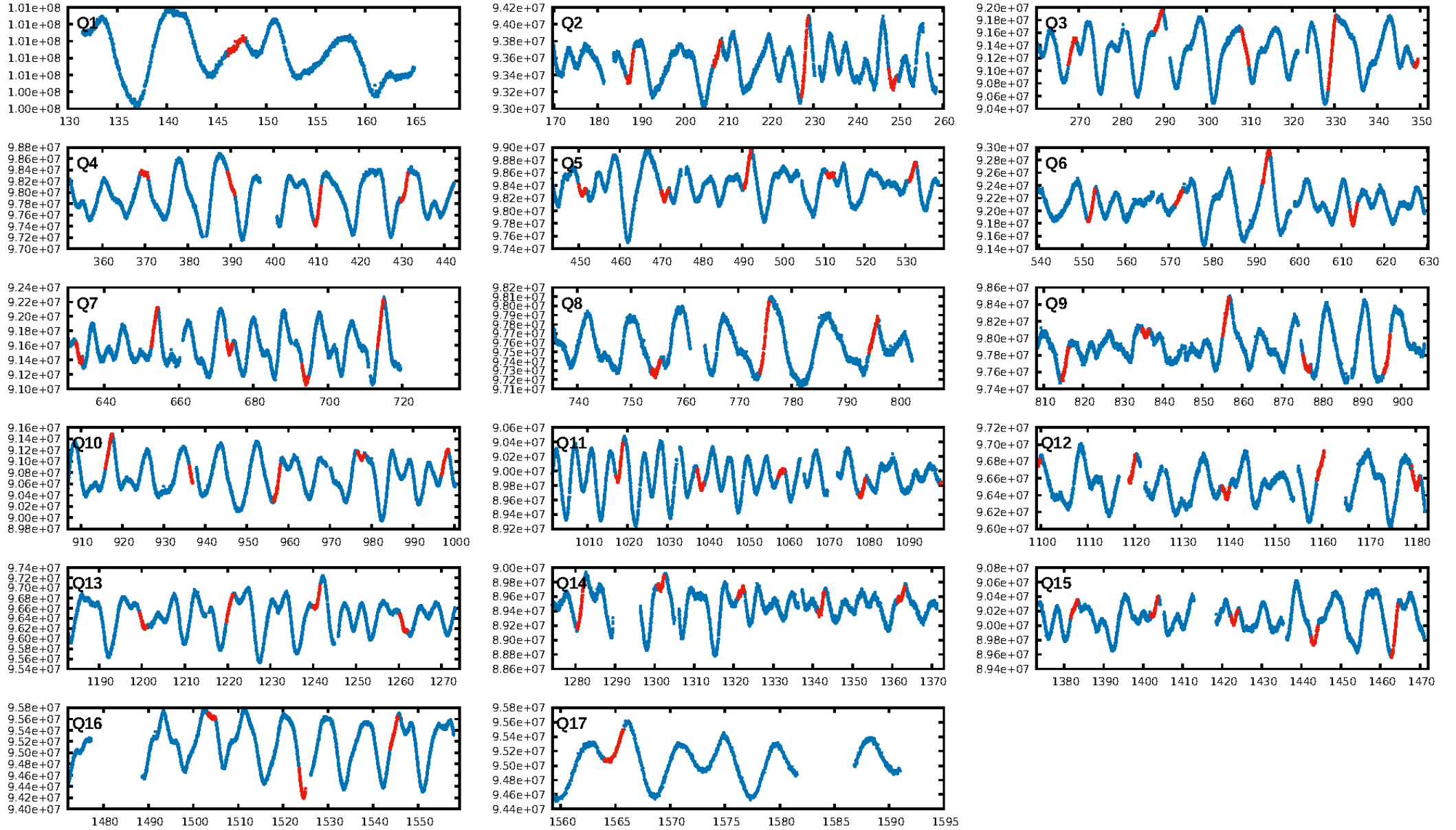
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 98.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.59e-11
RollingBand-fgt: 1.00 [66/66]
GhostDiagnostic-chr: 1.535
Centroid-sig: N/A
Centroid-so: 0.765 arcsec [0.60 σ]
OotOffset-rm: 0.332 arcsec [1.61 σ]
KicOffset-rm: 0.354 arcsec [1.70 σ]
OotOffset-st: 3/4/4/4 [15]
KicOffset-st: 3/4/4/4 [15]
DiffImageQuality-fgm: 0.80 [12/15]
DiffImageOverlap-fno: 1.00 [17/17]

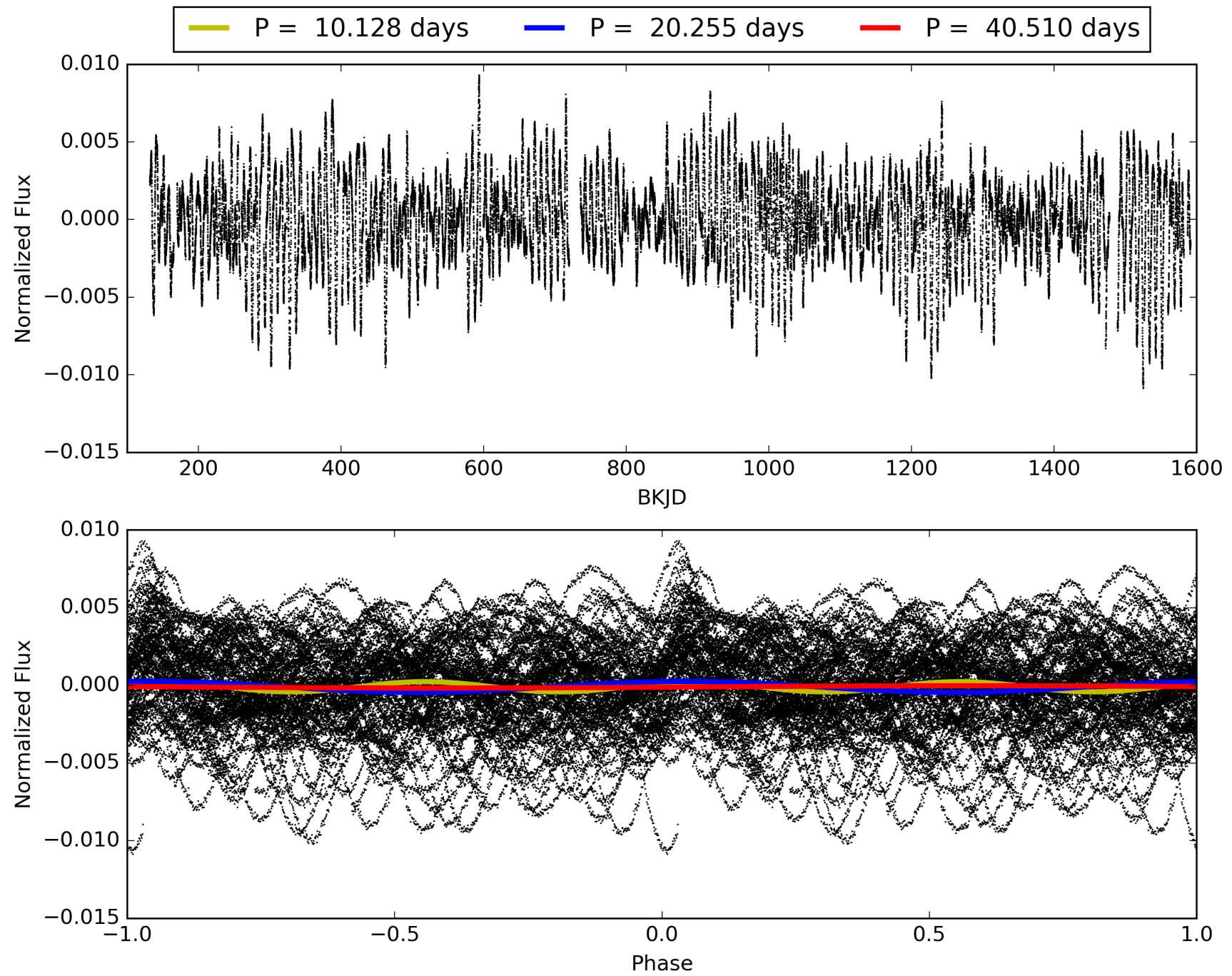
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 10:29:30 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005905179-01, PDC Light Curves

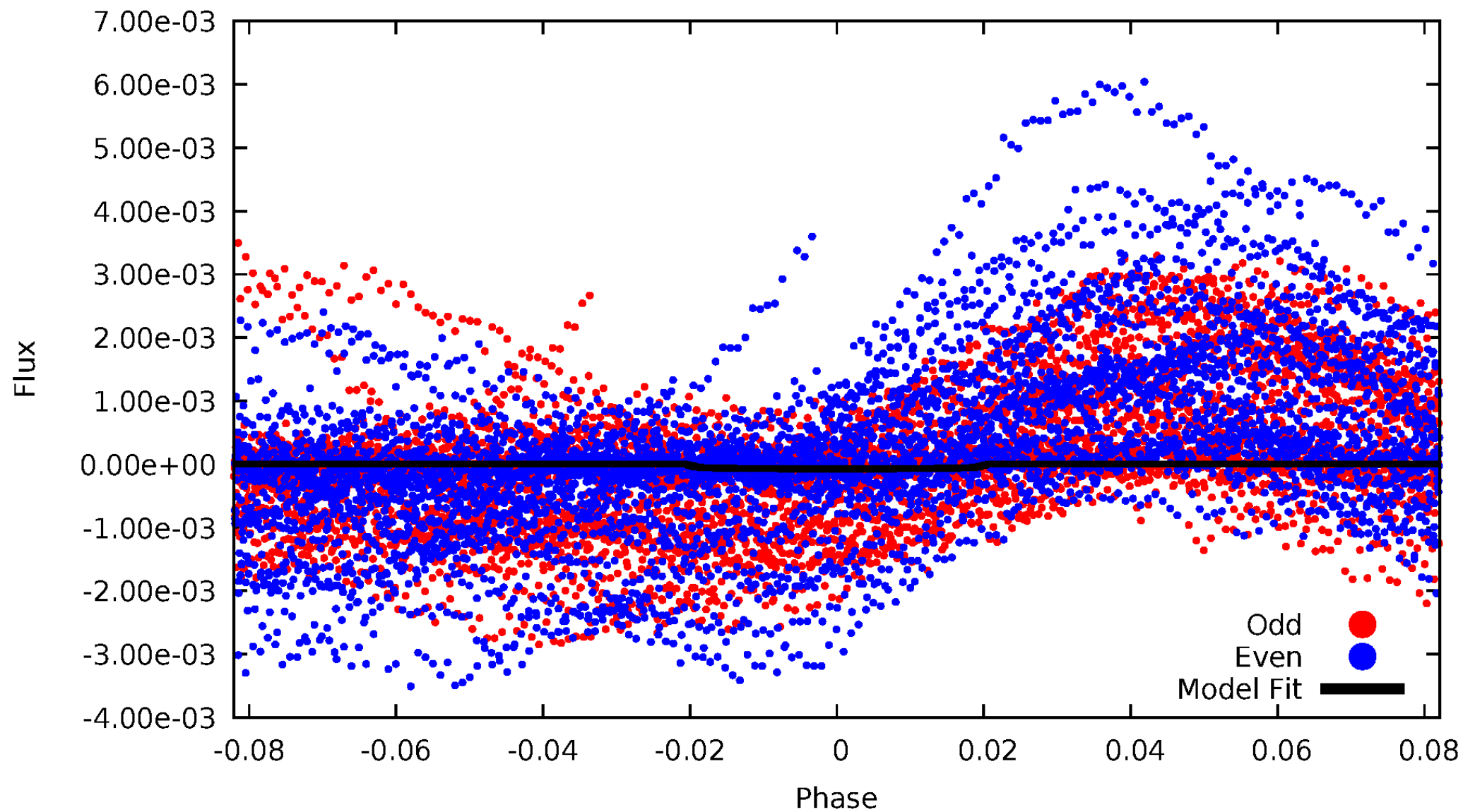


TCE 005905179-01



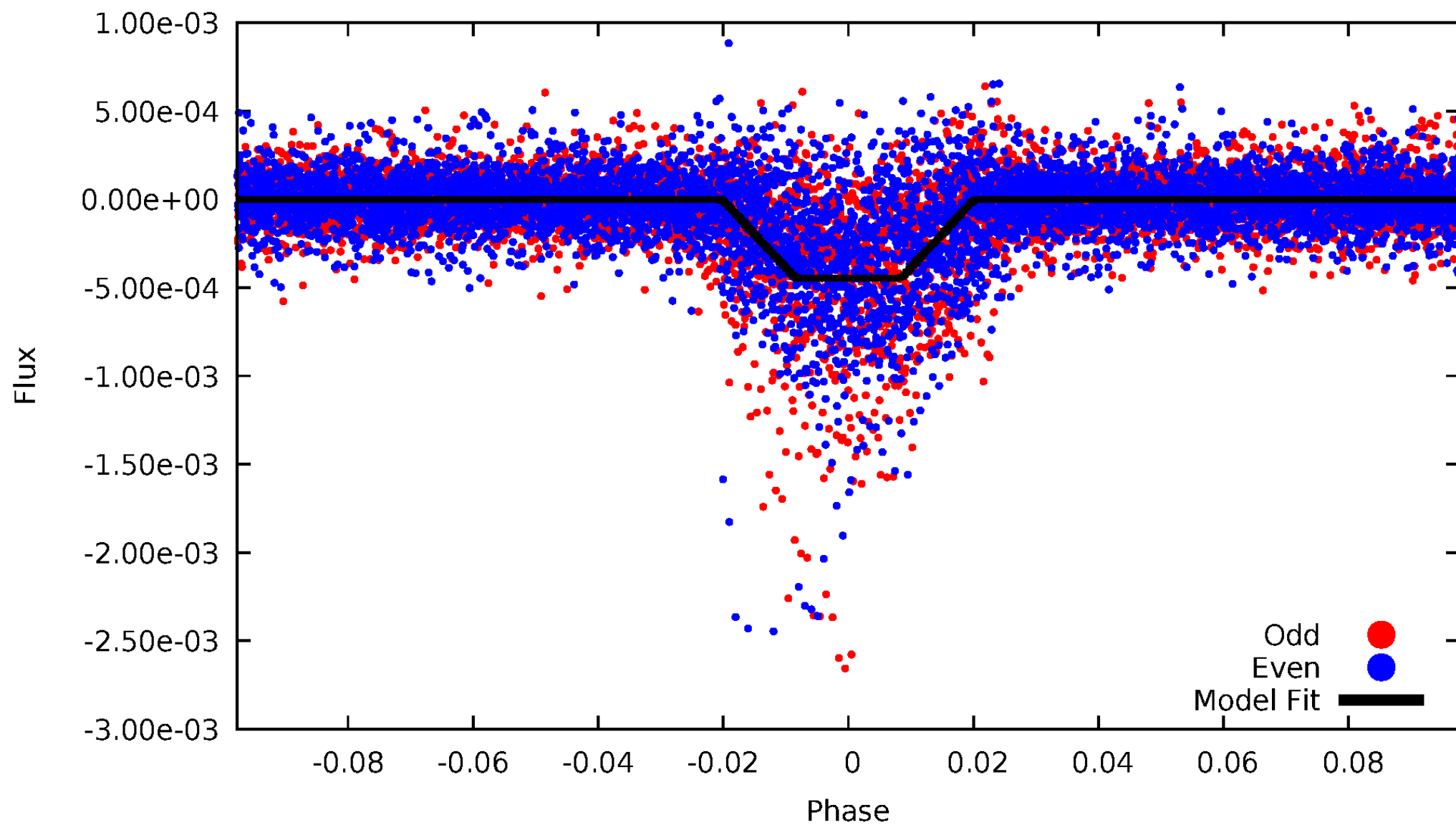
DV Odd/Even

TCE 005905179-01

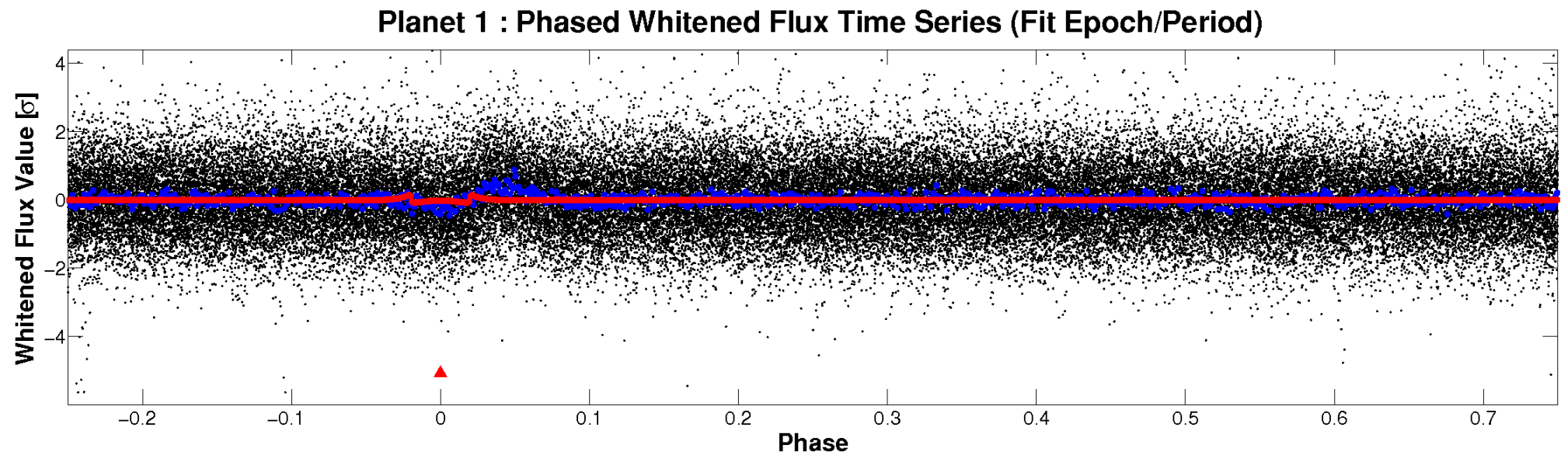
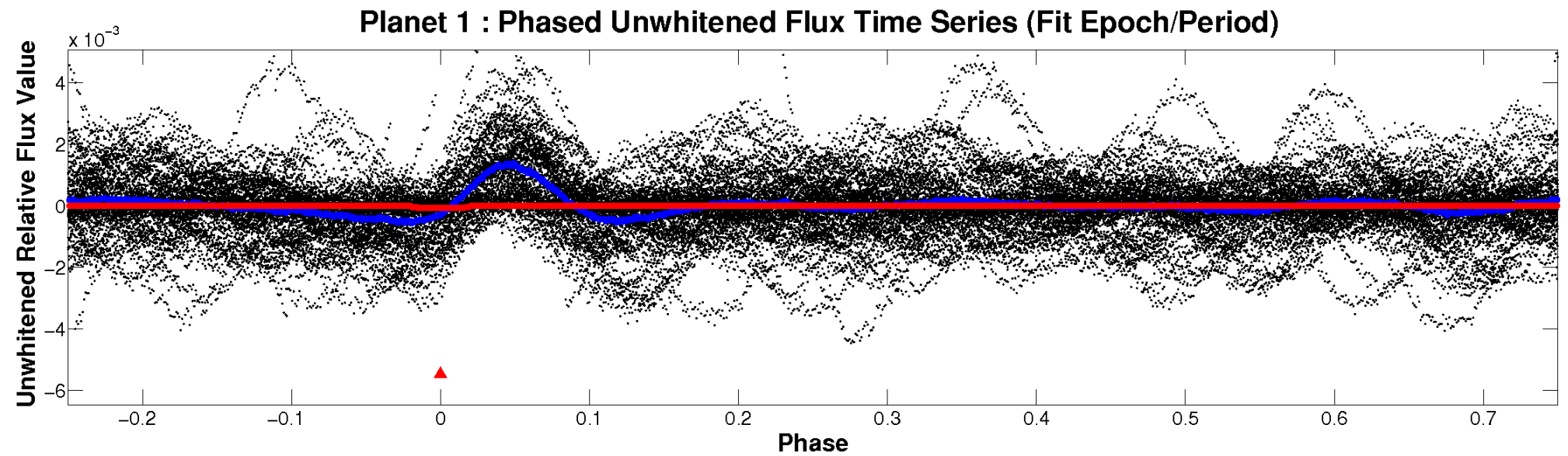


ALT Odd/Even

TCE 005905179-01

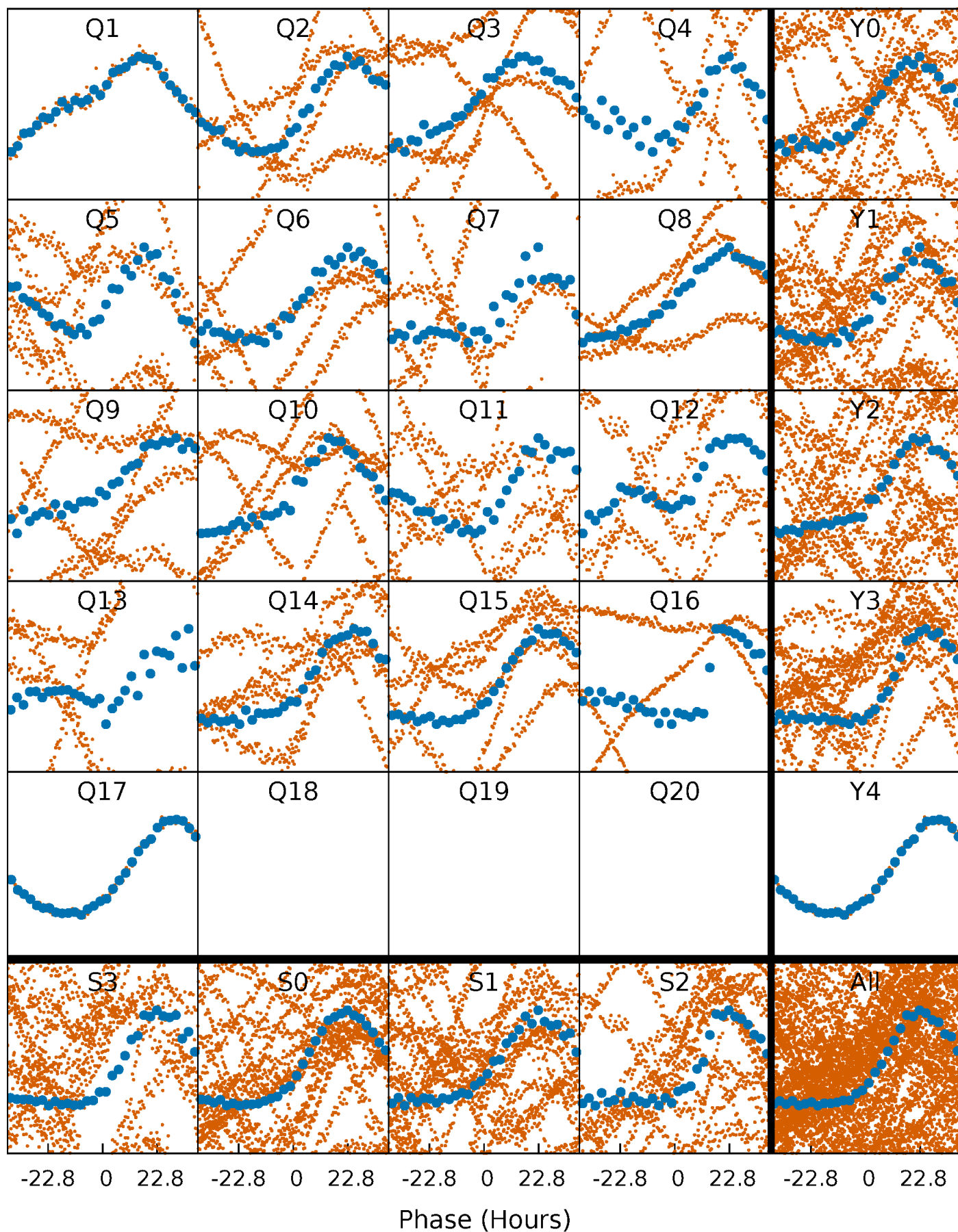


Non-Whitened Vs. Whitened Light Curve



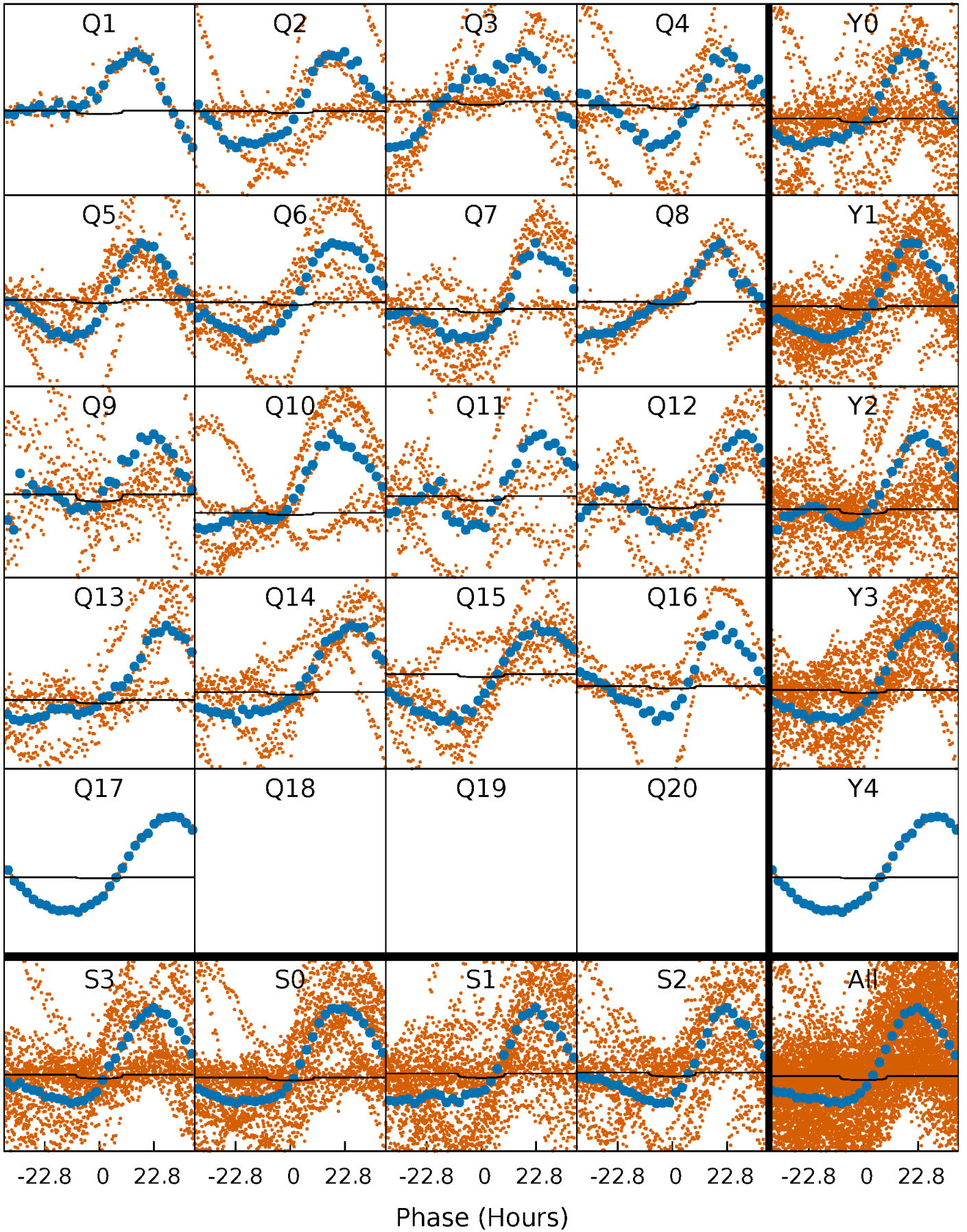
PDC Quarter-Phased Transit Curves

TCE 005905179-01 P= 20.255213 Days $T_0=147.011931$ (BKJD)



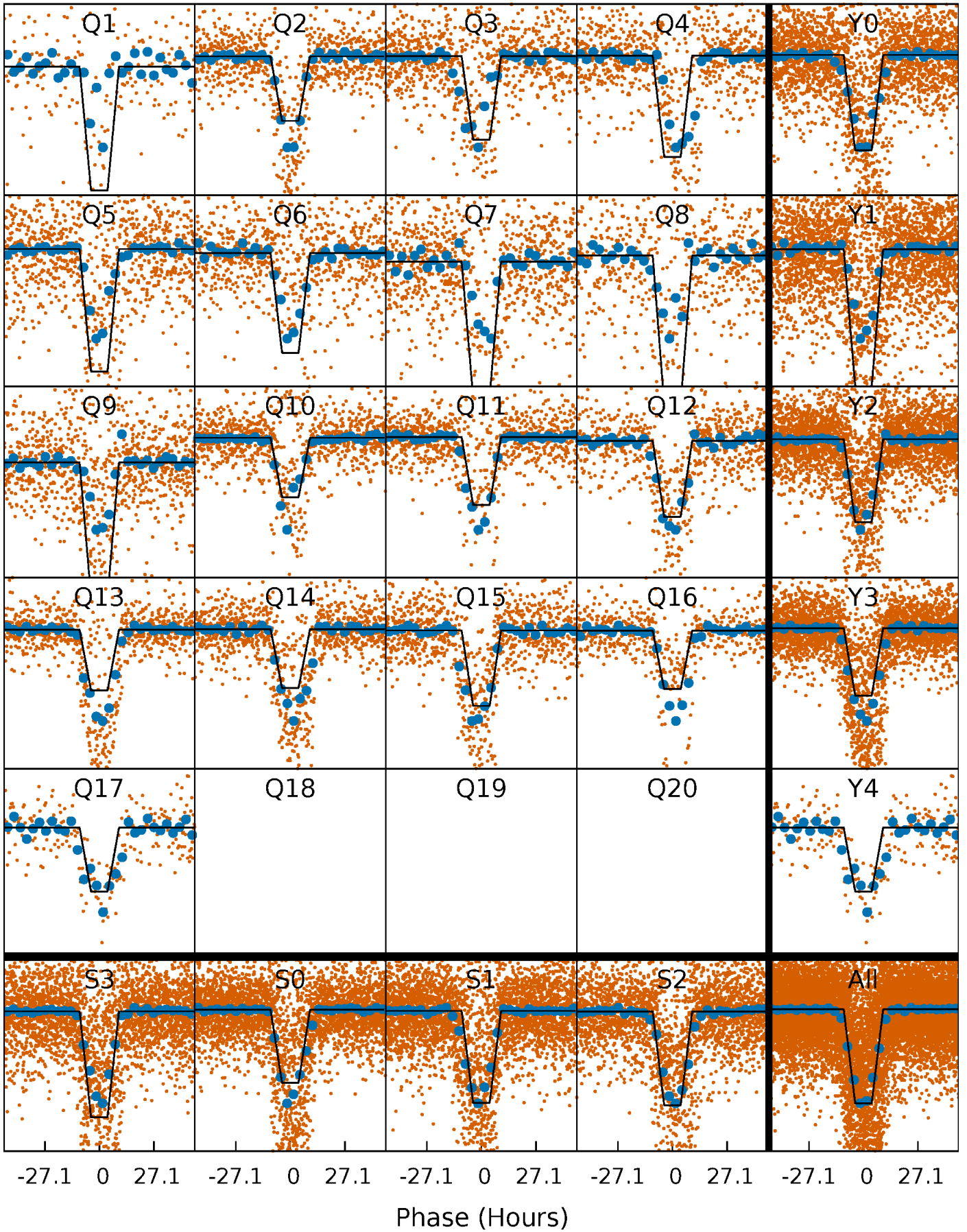
DV Quarter-Phased Transit Curves

TCE 005905179-01 P= 20.255213 Days $T_0=147.011931$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

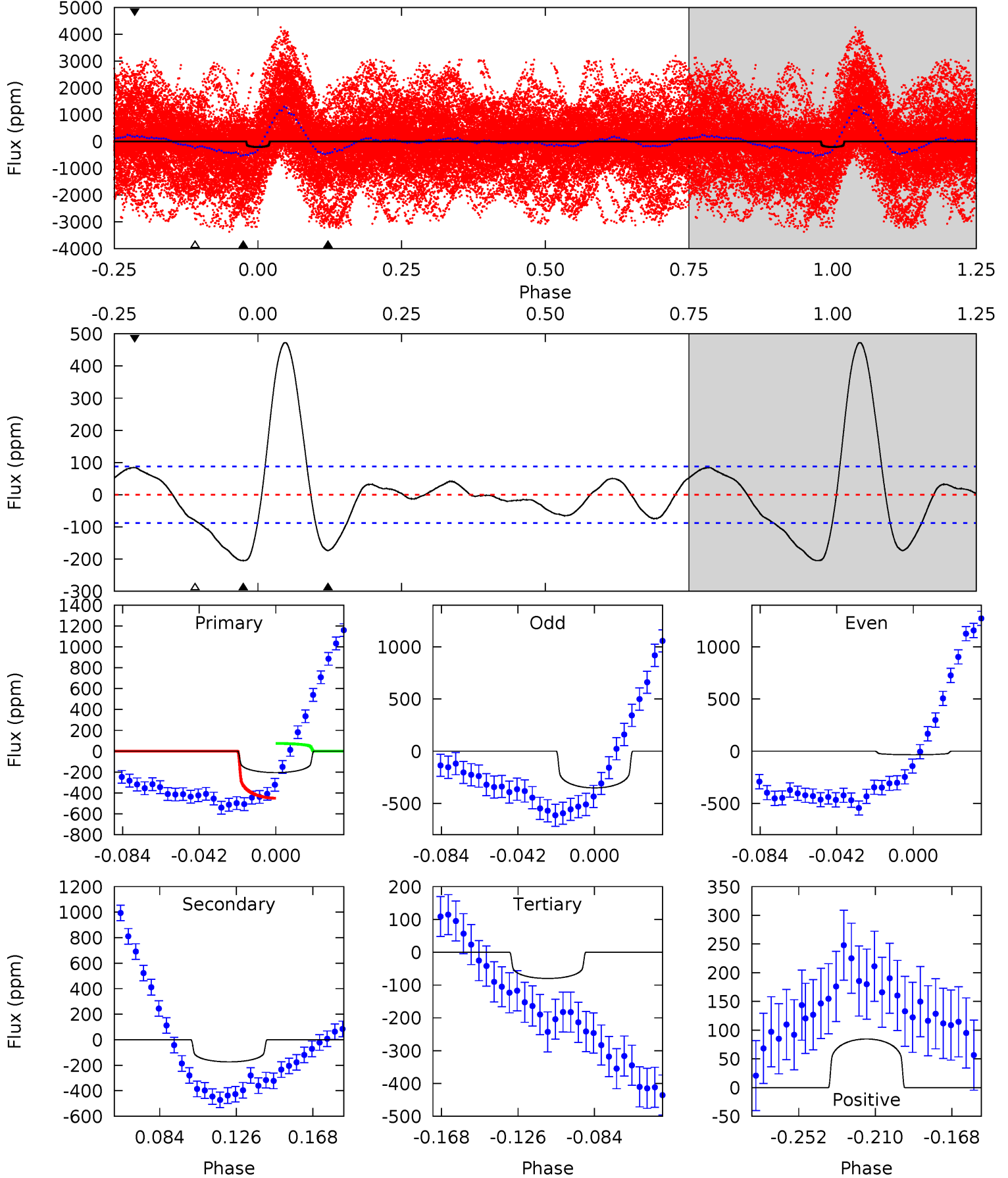
TCE 005905179-01 P= 20.256619 Days $T_0=146.926900$ (BKJD)



DV Model-Shift Uniqueness Test

005905179-01, P = 20.255213 Days, E = 126.756718 Days

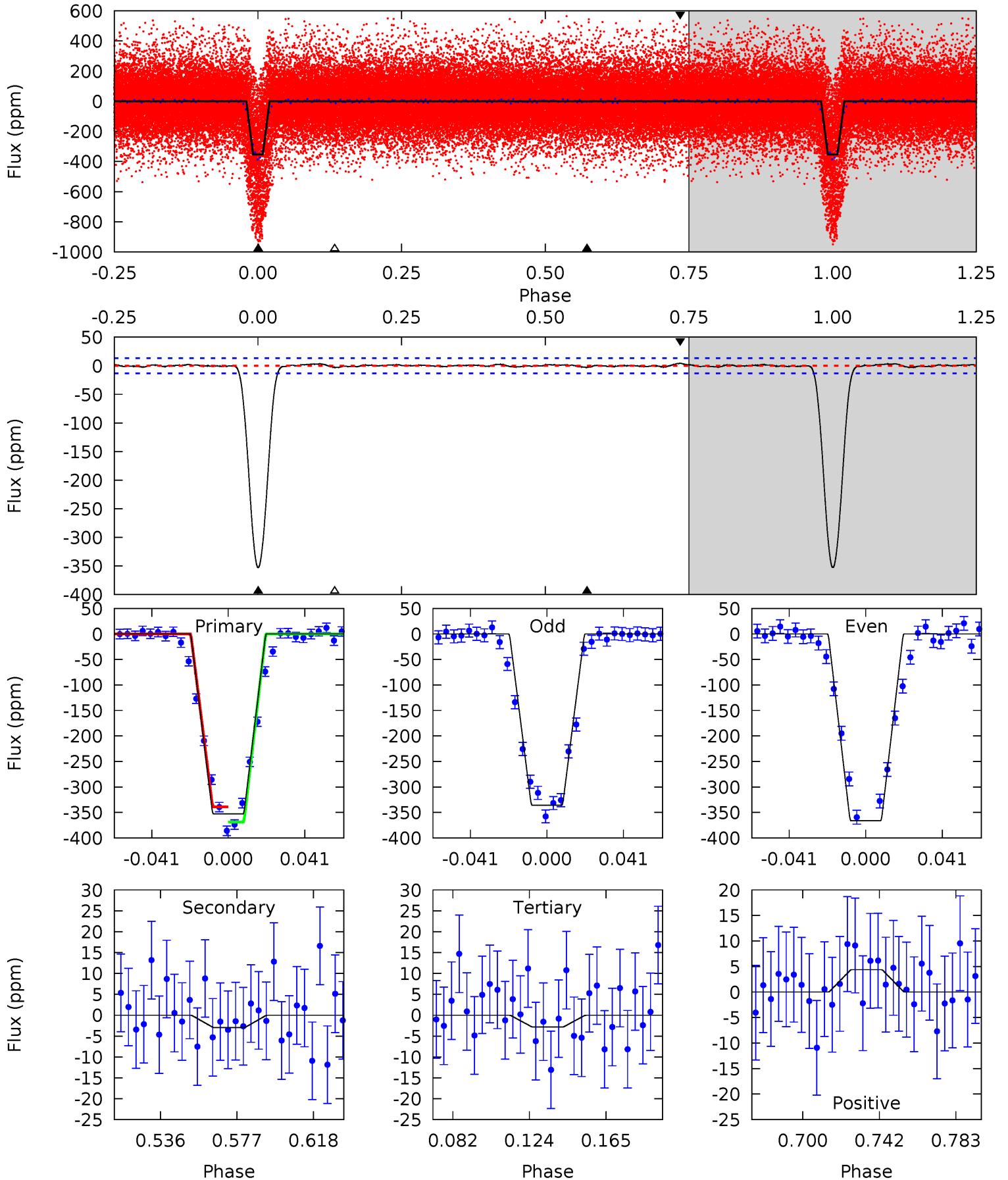
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.0	9.36	4.31	4.56	4.74	2.03	5.86	6.73	6.48	5.05	4.79	8.59	3.41	0.70	10.5



Alt Model-Shift Uniqueness Test

005905179-01, P = 20.256619 Days, E = 126.670281 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
125.9	1.06	1.01	1.56	4.75	2.04	0.48	124.9	124.3	0.05	-0.50	5.37	1.23	0.01	5.23



Stellar Parameters For KIC 005905179

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5667^{+188}_{-154}	$3.820^{+0.624}_{-0.156}$	$-0.220^{+0.300}_{-0.250}$	$2.156^{+0.547}_{-1.185}$	$1.120^{+0.147}_{-0.274}$	$0.157^{+1.413}_{-0.069}$
	+3%/-3%	+16%/-4%	+136%/-114%	+25%/-55%	+13%/-24%	+898%/-44%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005905179-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-174 ± 19	$1.93^{+0.60}_{-0.60}$	1284^{+119}_{-190}	6940^{+760}_{-681}	577^{+644}_{-234}
Alt.	-3 ± 3	$4.69^{+1.07}_{-1.31}$	1289^{+122}_{-188}	2421^{+257}_{-4355}	$1.734^{+2.624}_{-1.612}$

T_{max} = Theoretical Maximum Planetary Temperature
 T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)
 A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

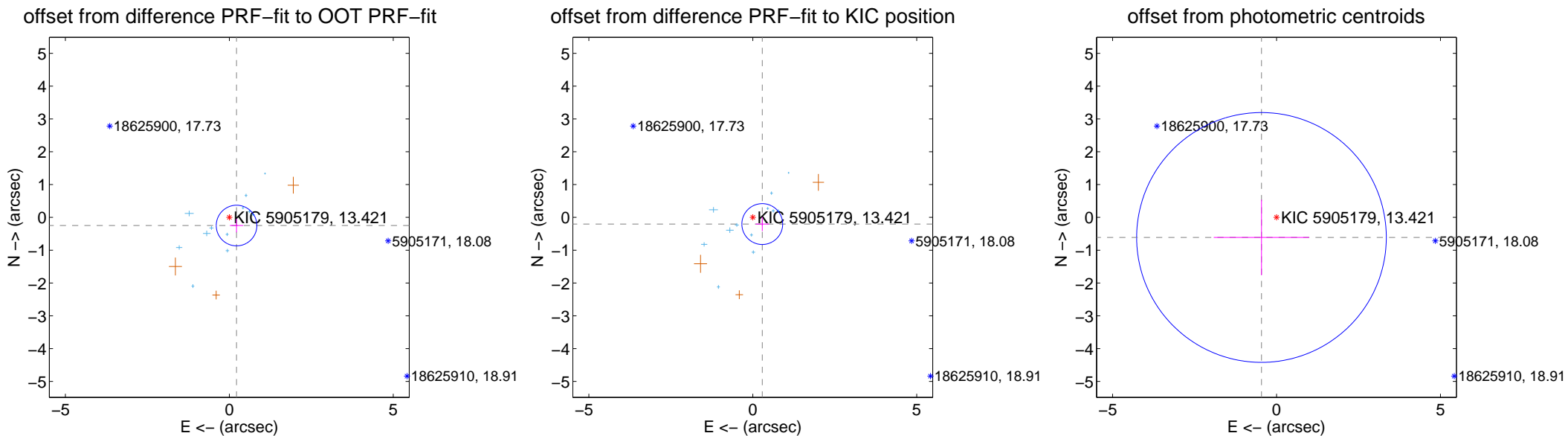
DV Centroid Data

Supplemental centroid analysis for 005905179-01. Kepler magnitude: 13.42. Transit SNR 4.19

There are 12 quarters with good PRF difference image offsets

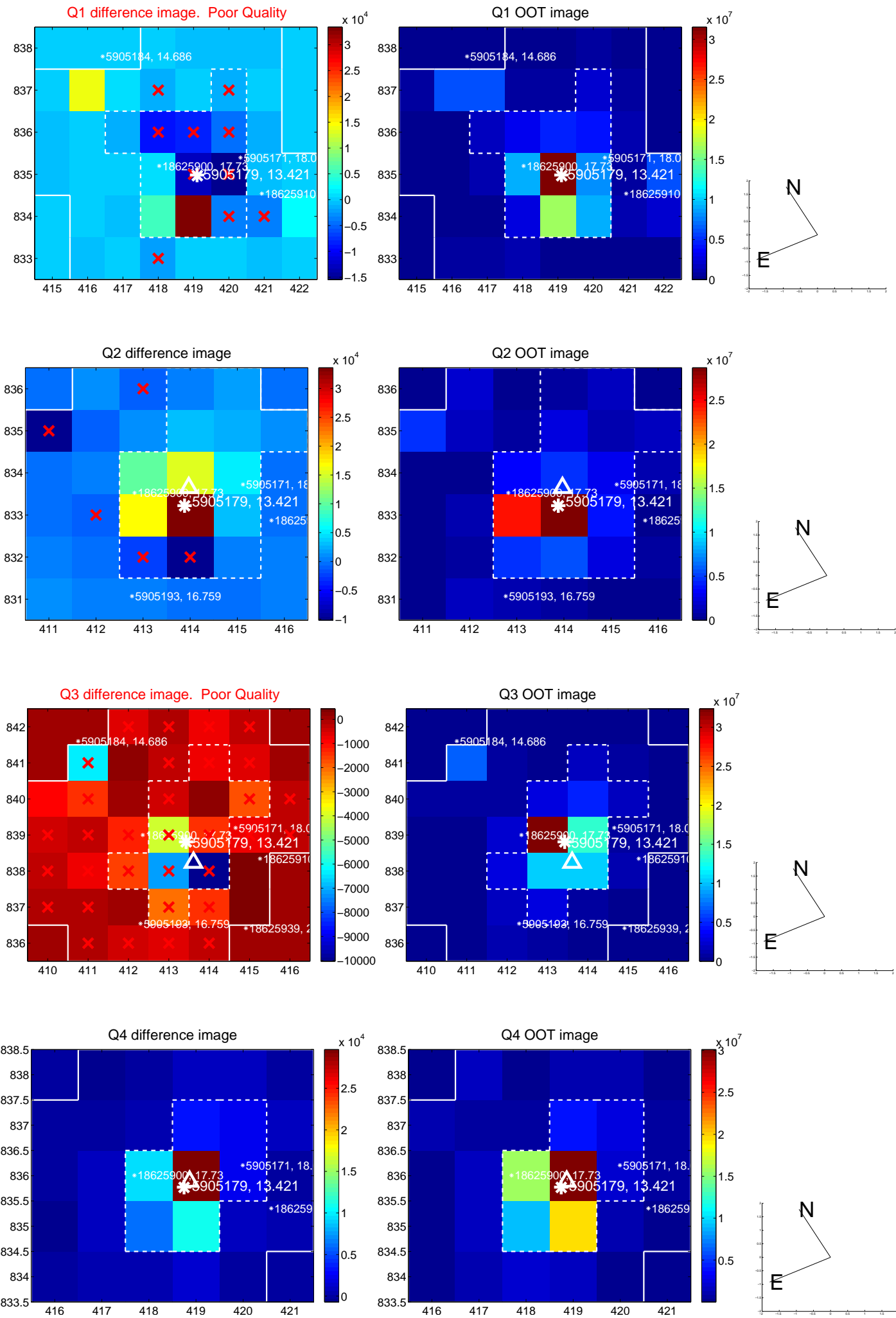
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.332 ± 0.206	1.61	-0.220 ± 0.204	-0.248 ± 0.208
PRF-fit source offset from KIC position	0.354 ± 0.208	1.70	-0.289 ± 0.205	-0.204 ± 0.212
photometric centroid source offset	0.77 ± 1.27	0.60	0.46 ± 1.46	-0.61 ± 1.15

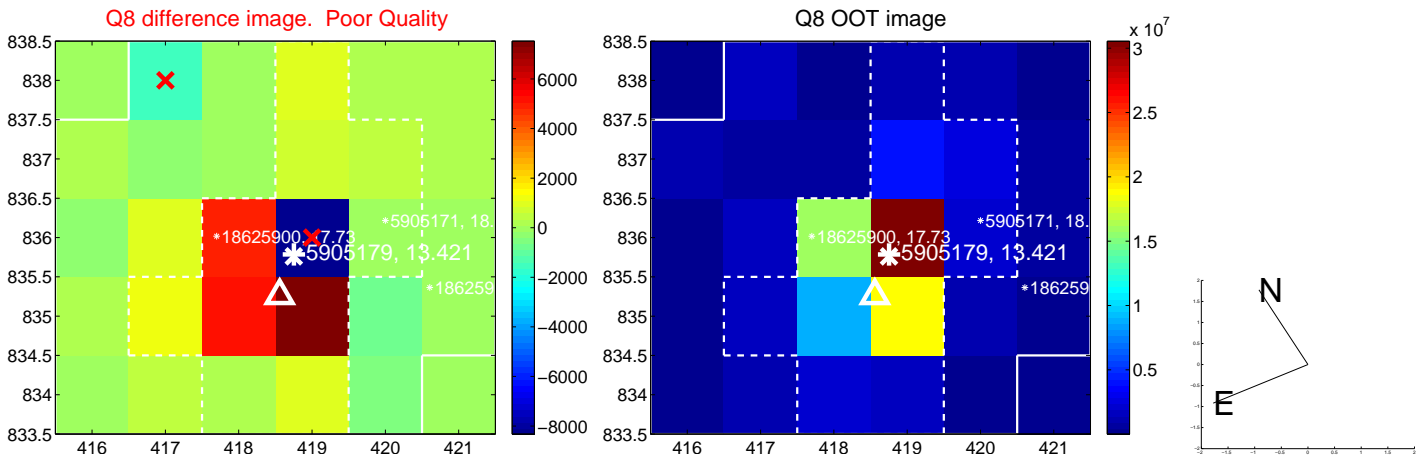
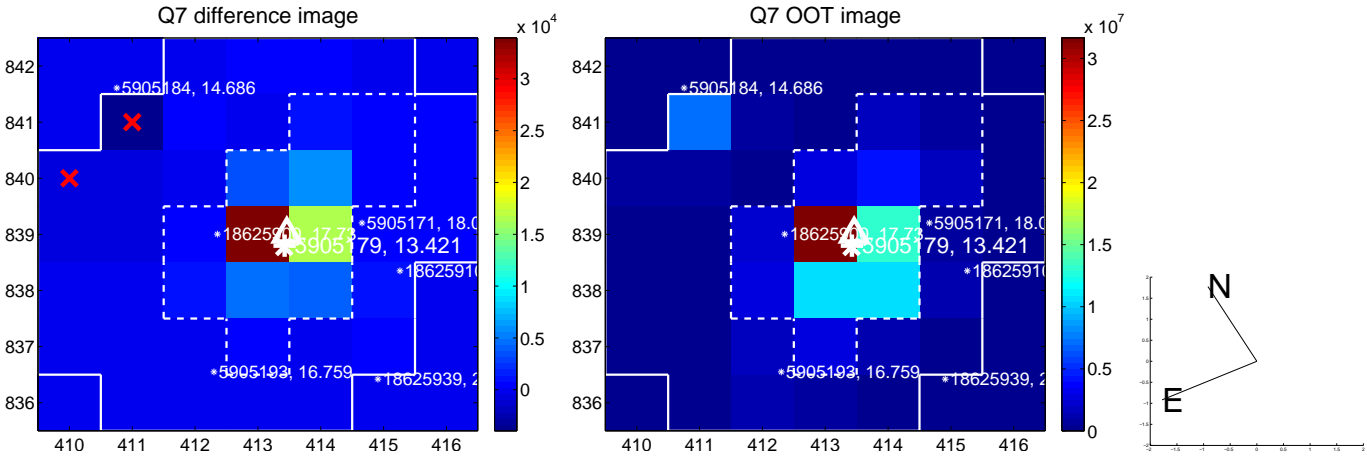
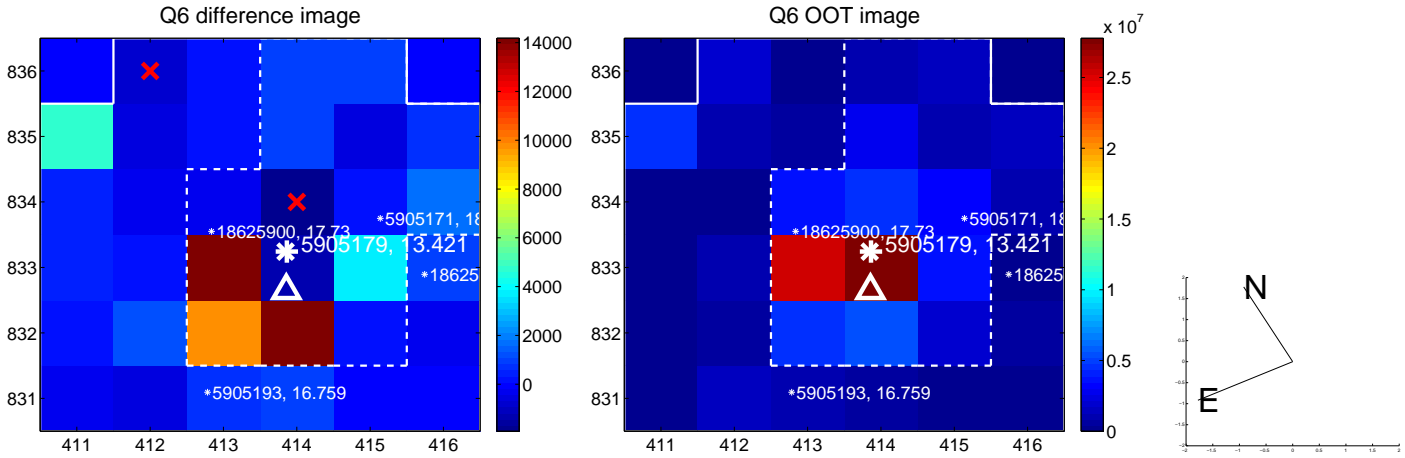
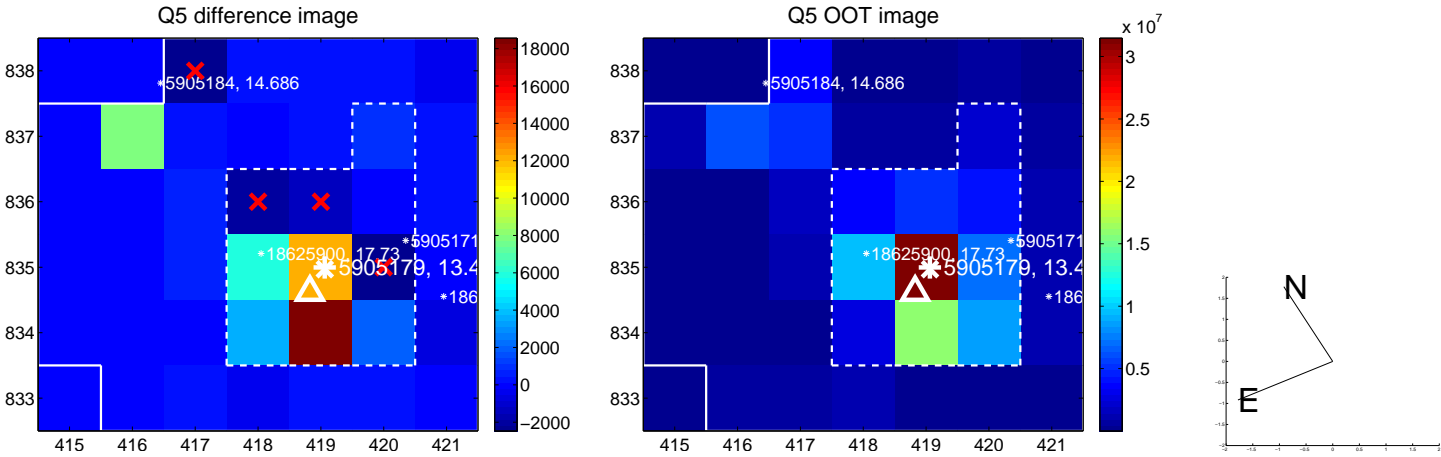


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

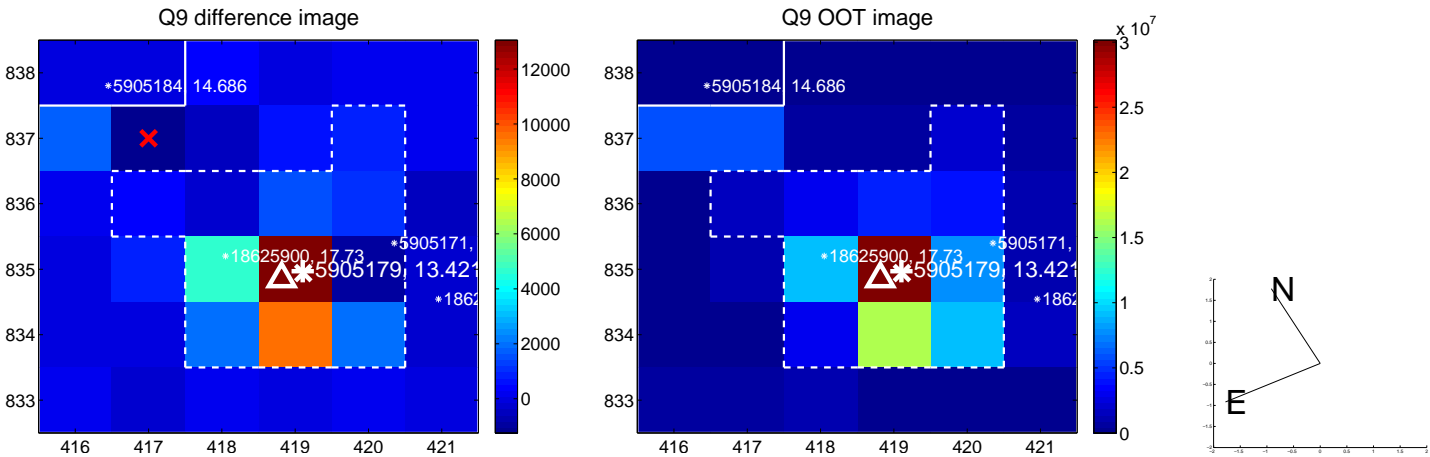
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



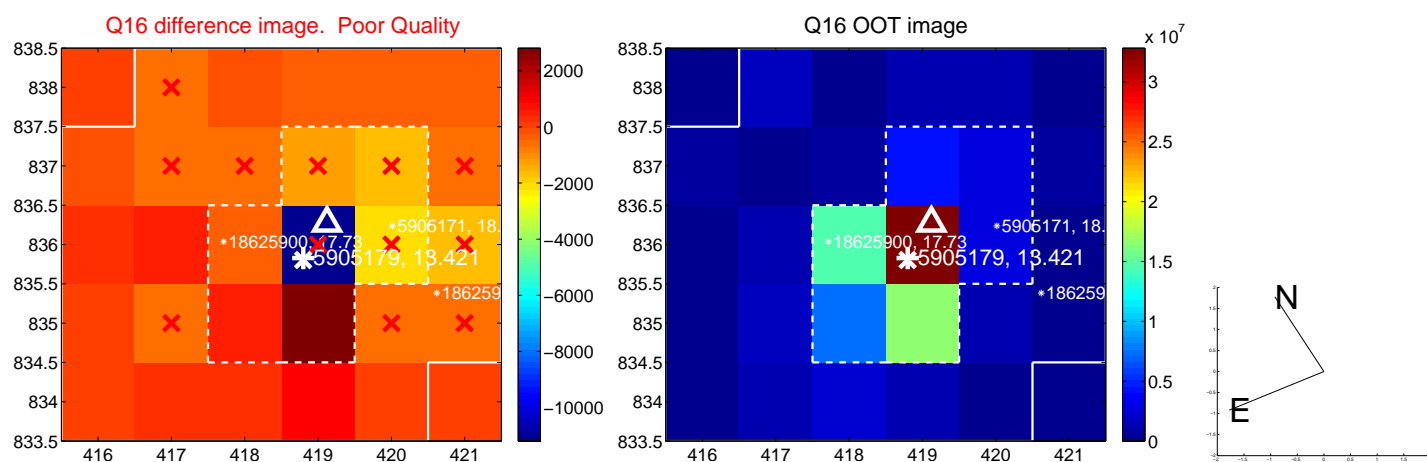
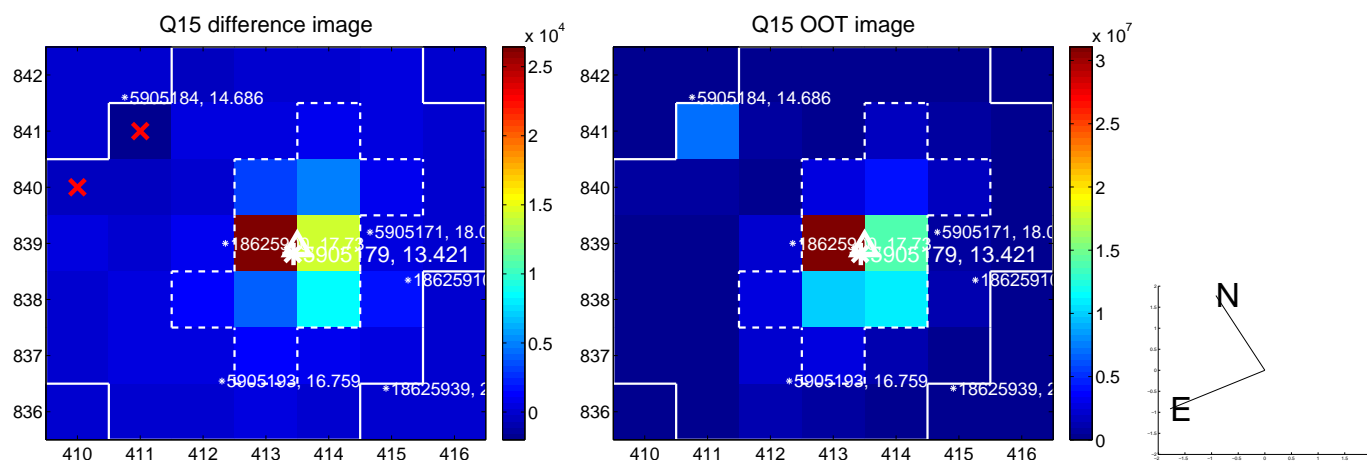
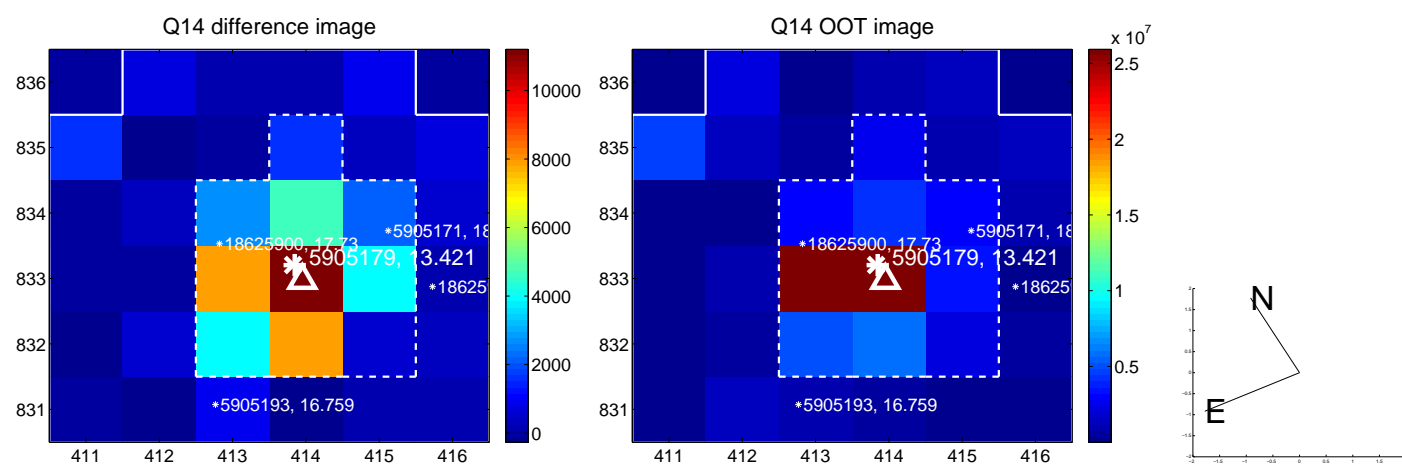
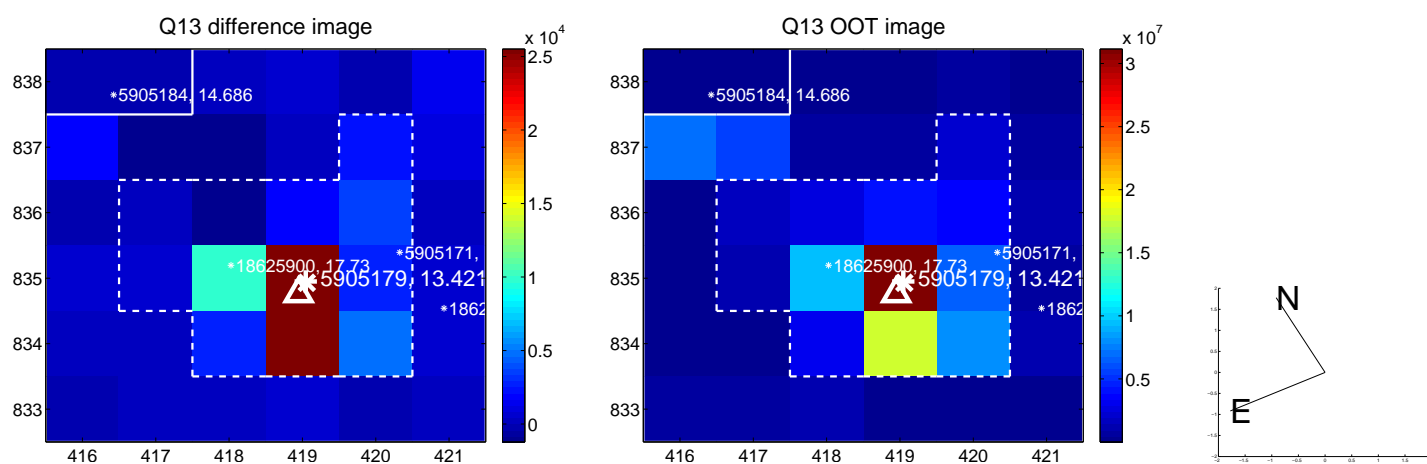
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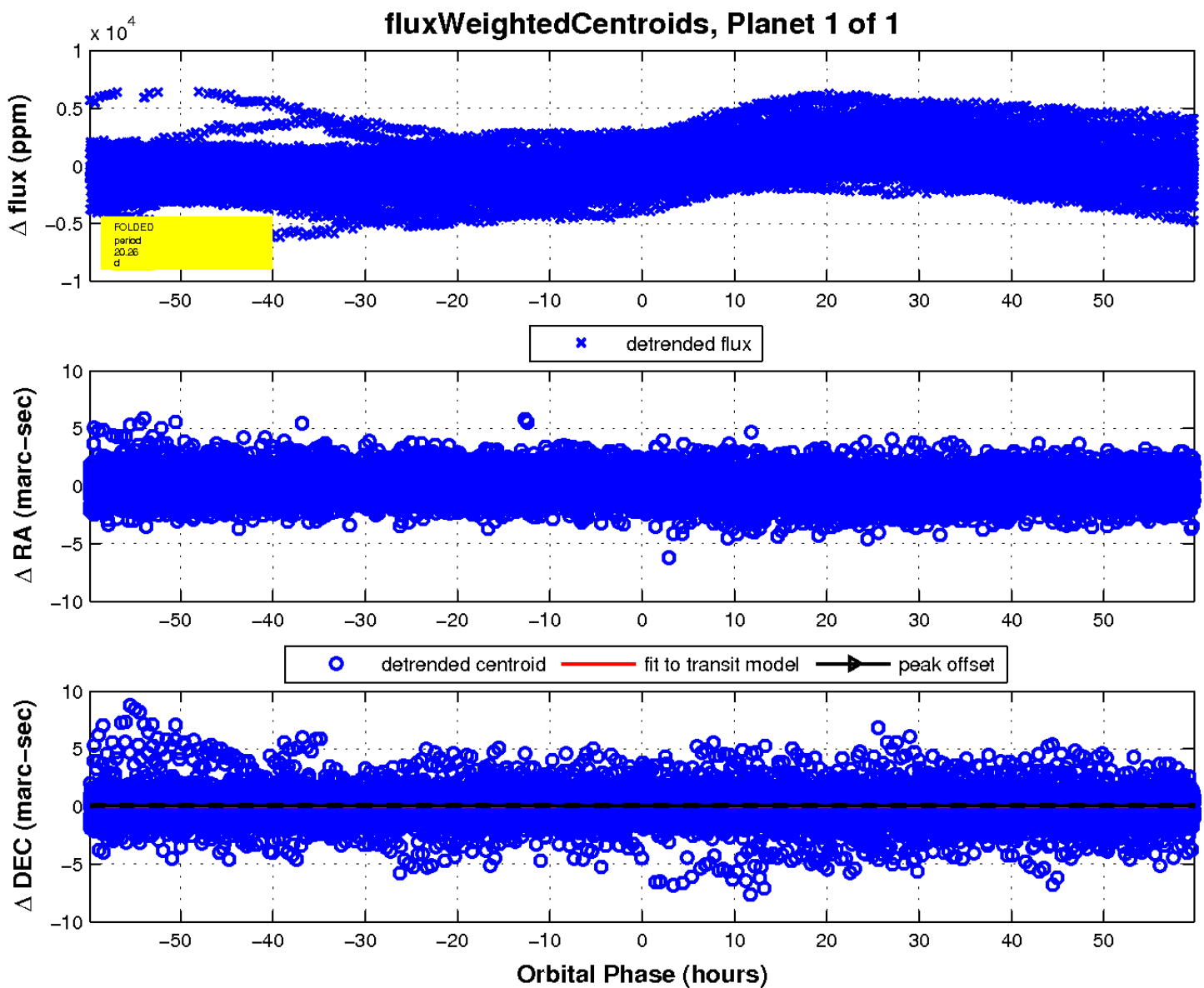
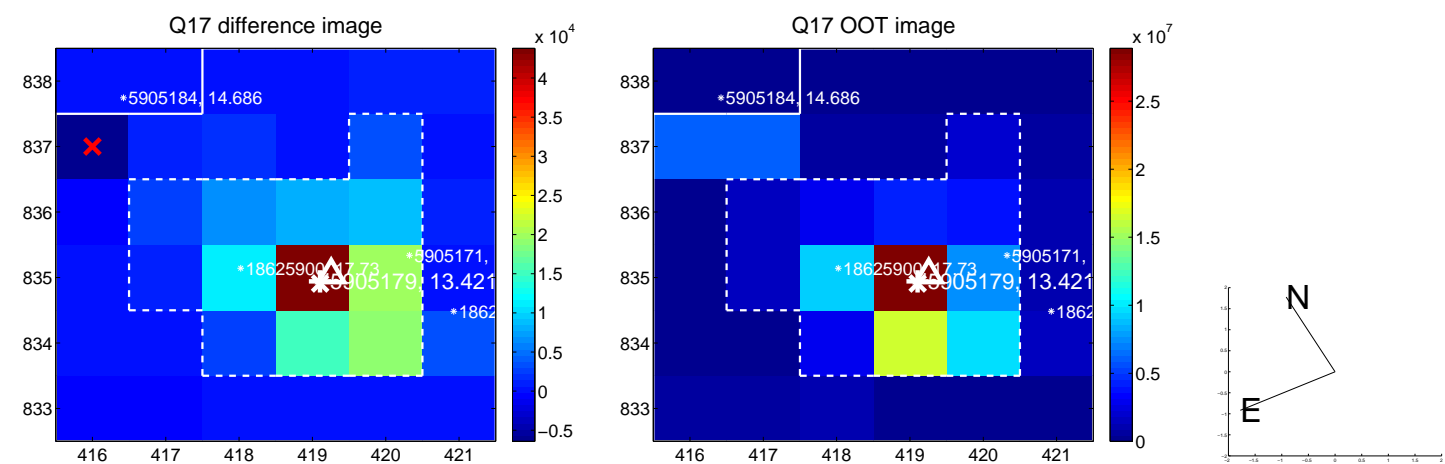
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UKIRT Image

Declination

