

KIC 005652260

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})
005652260-01	OBS	3703.01	4.464586	132.306035	71695.6	4.229	545.4	347.6	0.85	5743	32.11	260.84

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005652260-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_DV—MOD_ODDEVEN_ALT—DEEP_V_SHAPED—CENT_KIC_POS

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.

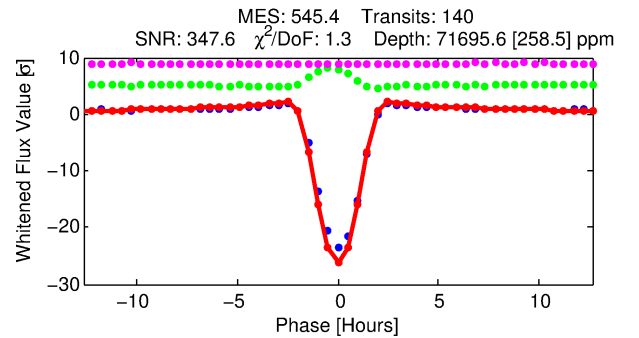
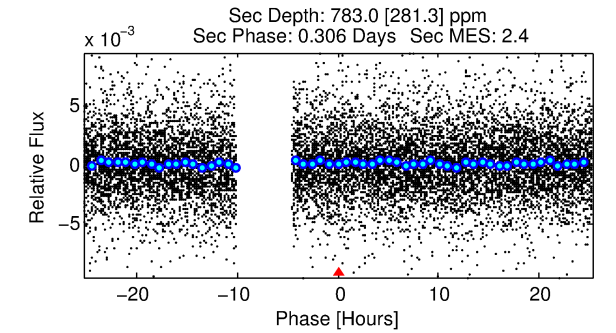
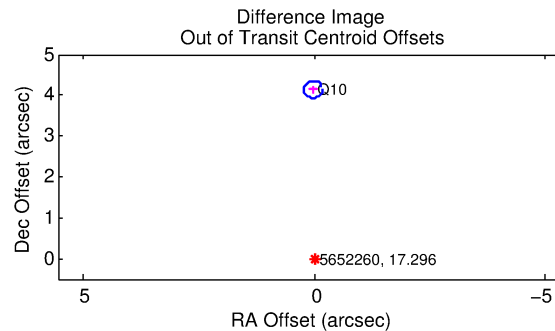
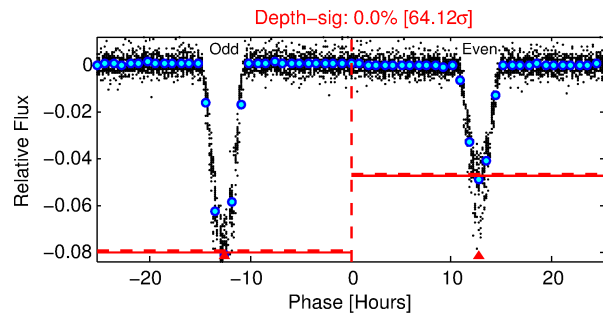
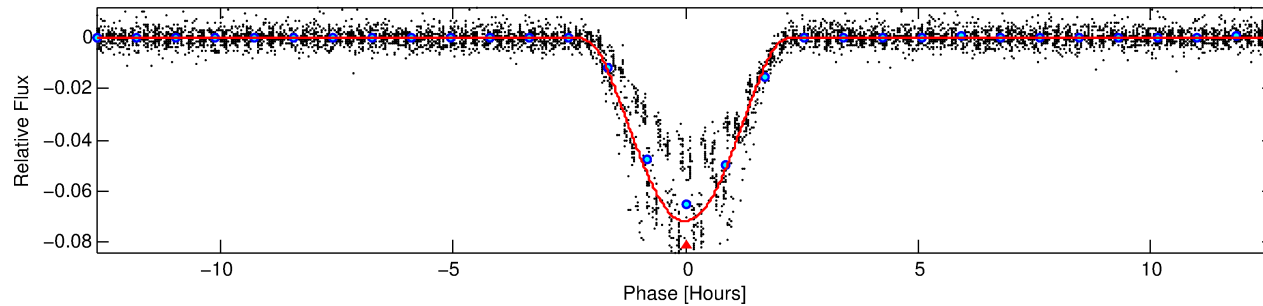
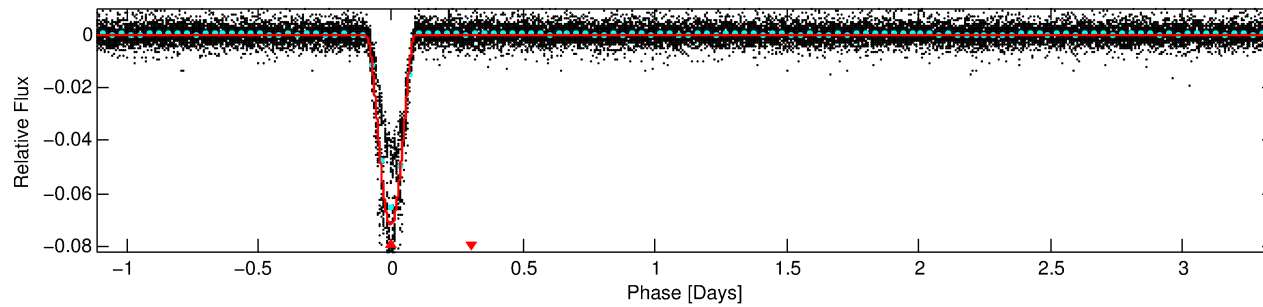
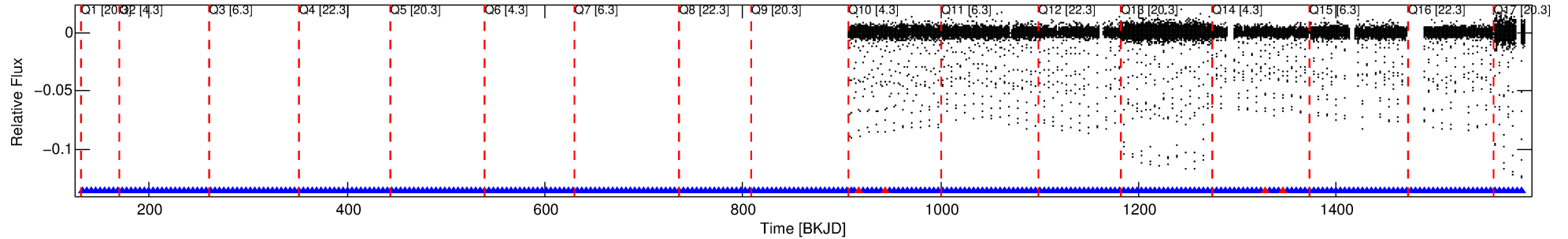
Ephemeris Match Information For 005652260-01

No Significant Match Found

DV One-Page Summary

KIC: 5652260 Candidate: 1 of 1 Period: 4.465 d
KOI: K03703.01 Corr: 0.981

Kp: 17.30 R*: 0.85 Rs Teff: 5743.0 K Logg: 4.55 Fe/H: -0.140



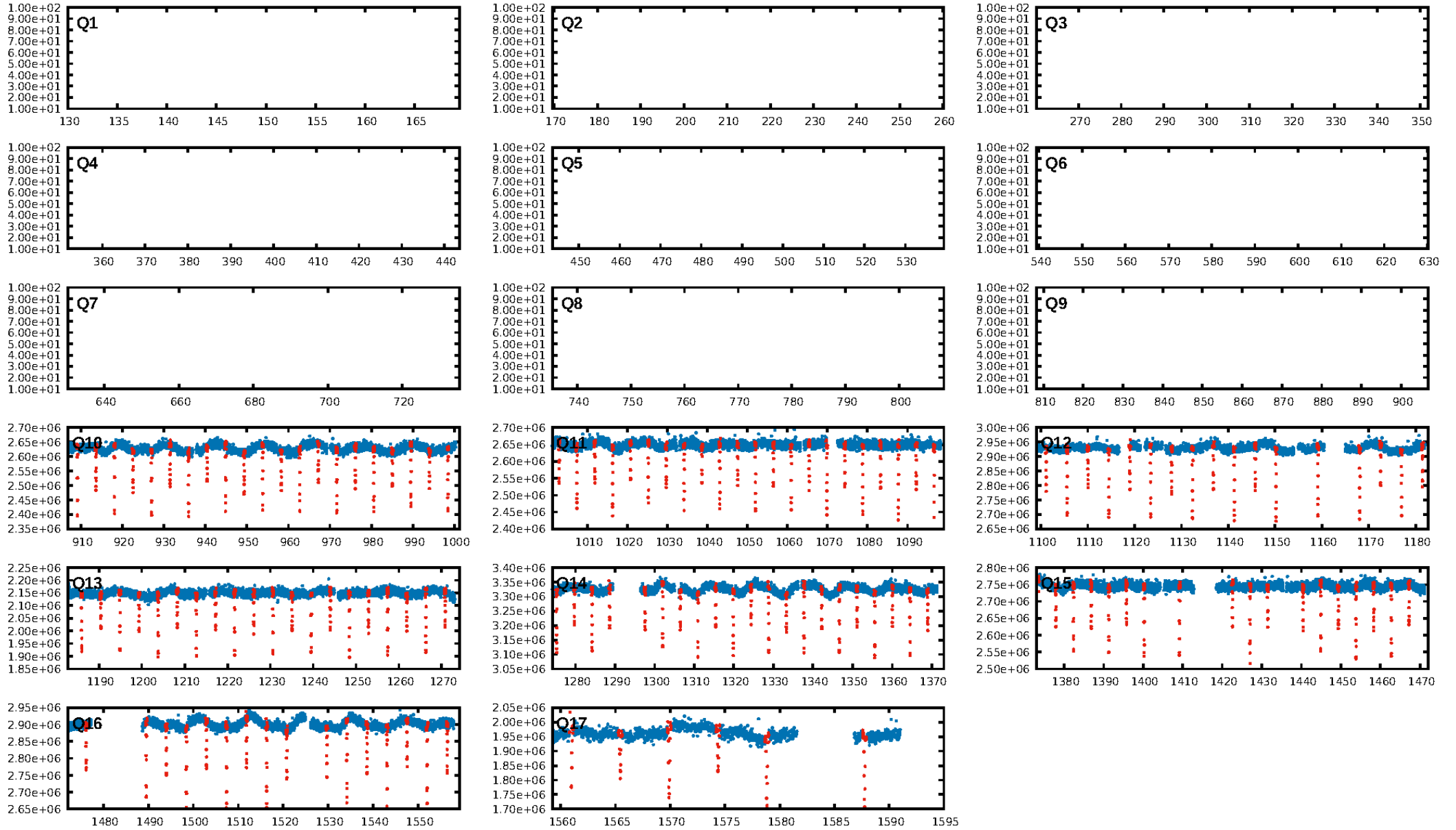
DV Fit Results:

Period = 4.46459 [0.00000] d
Epoch = 132.3060 [0.0004] BKJD
Rp/R* = 0.3449 [0.0390]
a/R* = 8.19 [0.06]
b = 0.89 [0.06]
Seff = 260.84 [98.56]
Teq = 1025 [97] K
Rp = 32.11 [9.77] Re
a = 0.0521 [0.0126] AU
Ag = 1.14 [0.63] [0.22σ]
Teffp = 1636 [181] K [2.97σ]

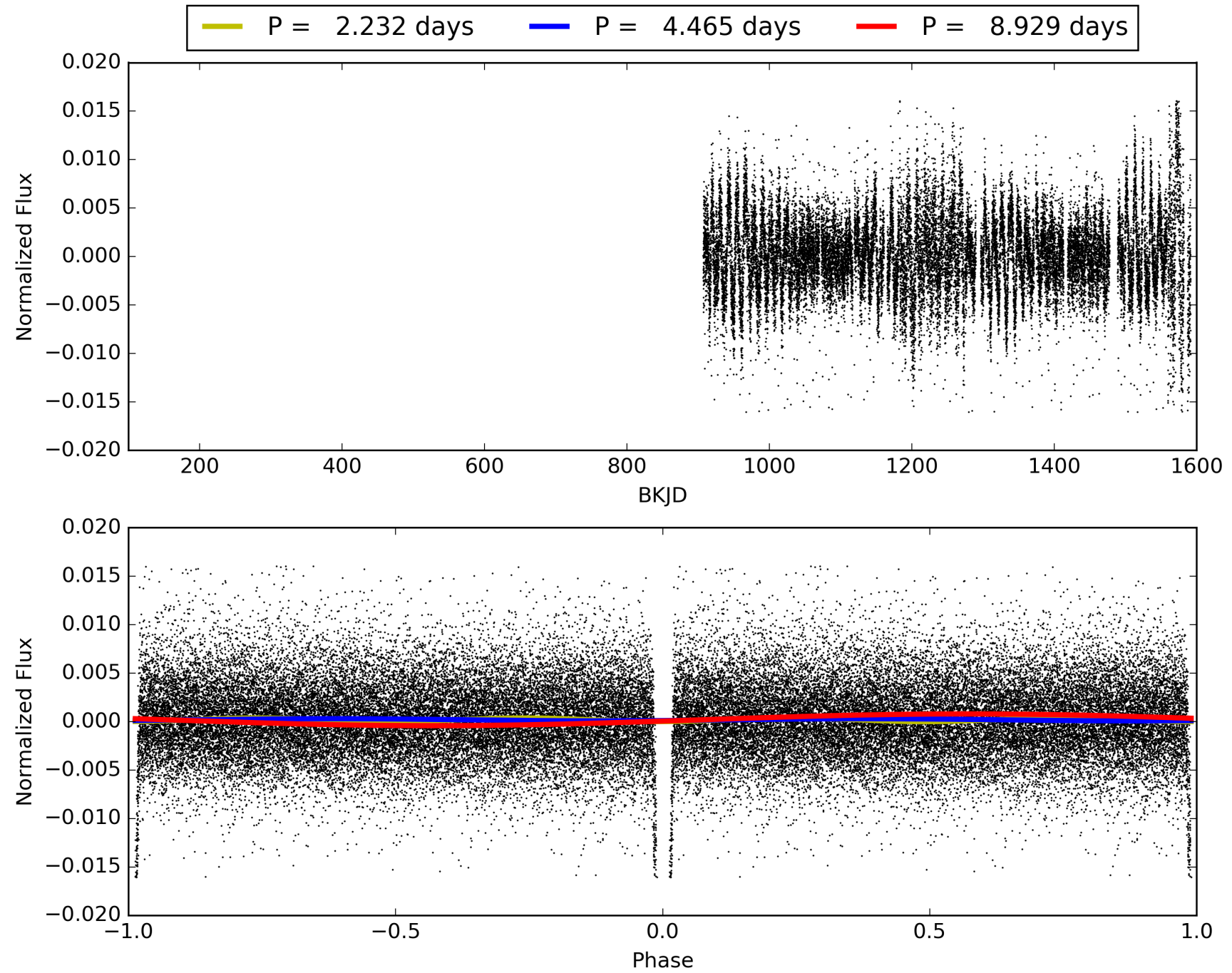
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.97 [130/134]
GhostDiagnostic-chr: 2.559
Centroid-sig: 0.0%
Centroid-so: 2.424 arcsec [445.39σ]
OotOffset-rm: 4.143 arcsec [60.78σ]
KicOffset-rm: 0.088 arcsec [1.16σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 2/2/2/2 [8]
DiffImageQuality-fgm: 1.00 [8/8]
DiffImageOverlap-fno: 1.00 [8/8]

TCE 005652260-01, PDC Light Curves

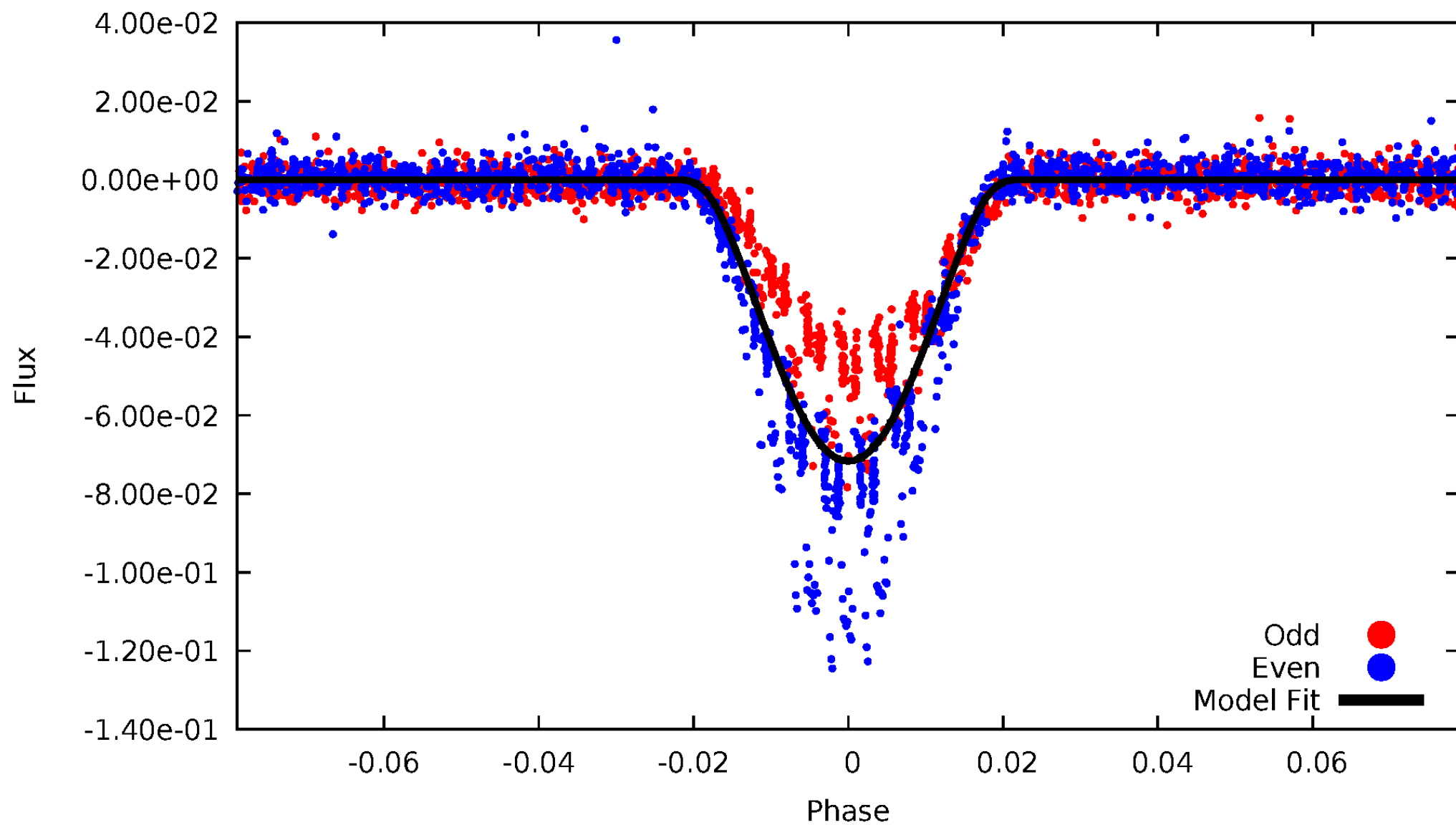


TCE 005652260-01



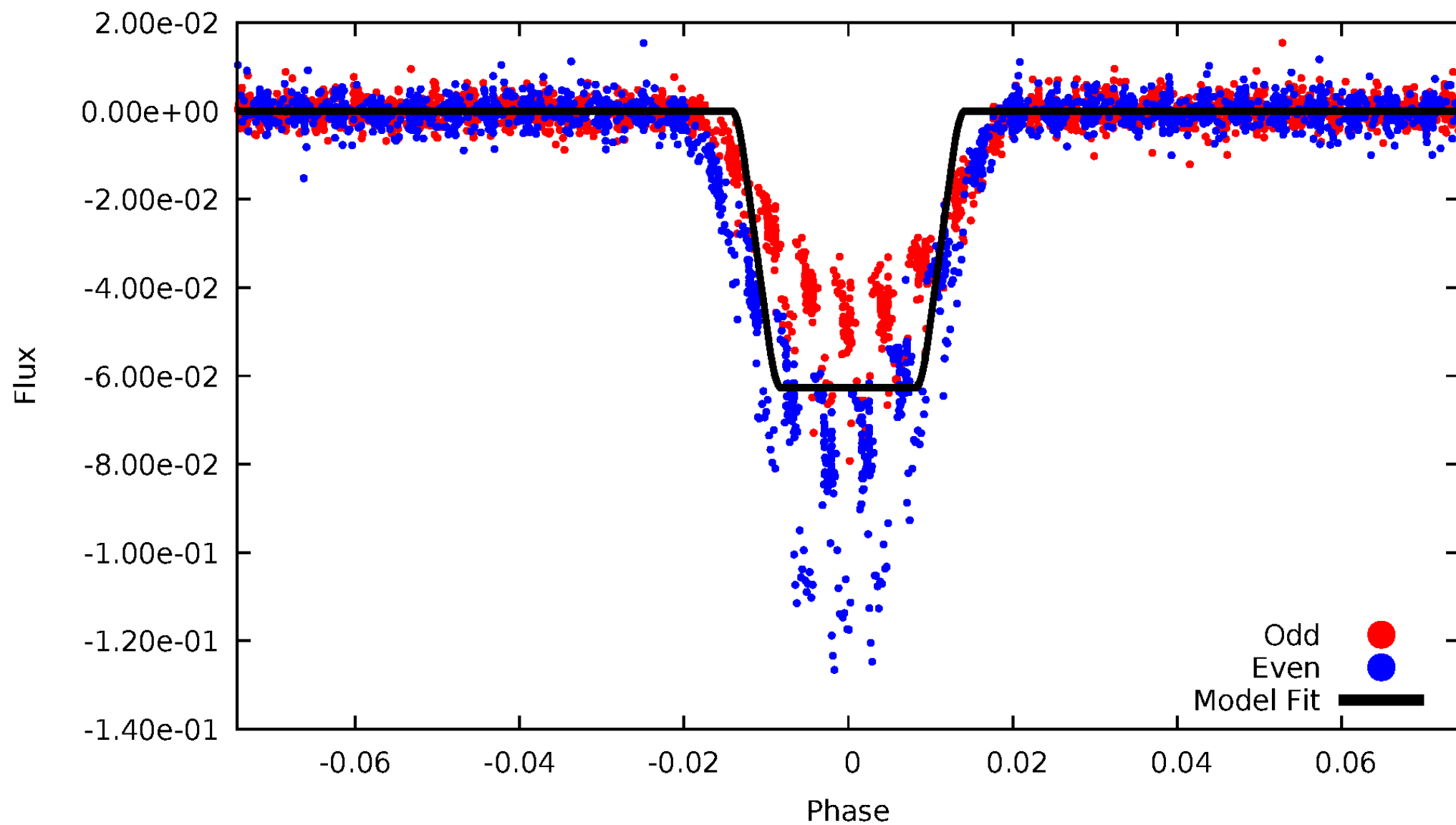
DV Odd/Even

TCE 005652260-01



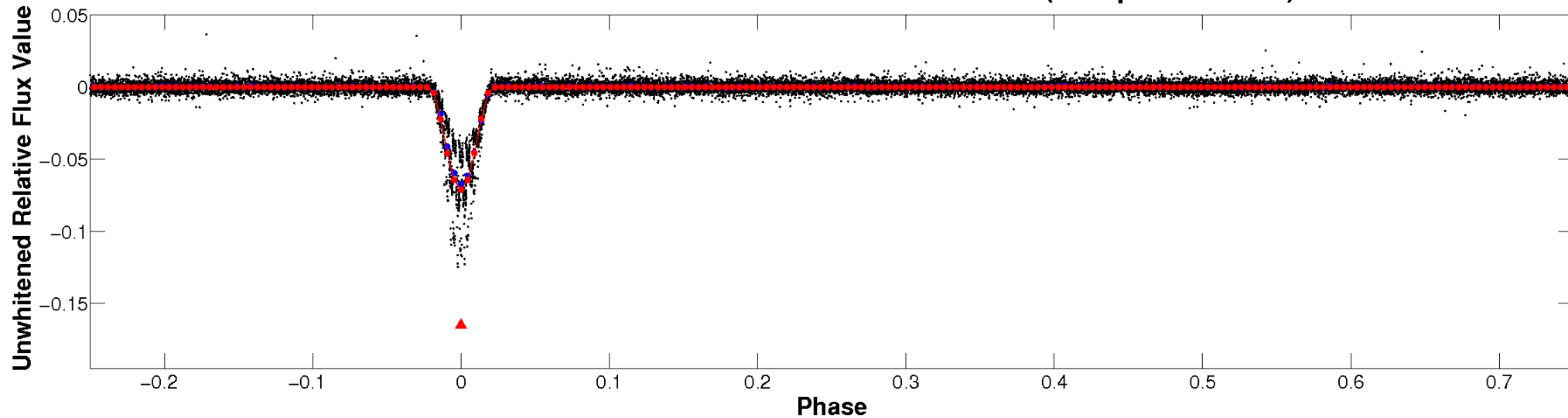
ALT Odd/Even

TCE 005652260-01

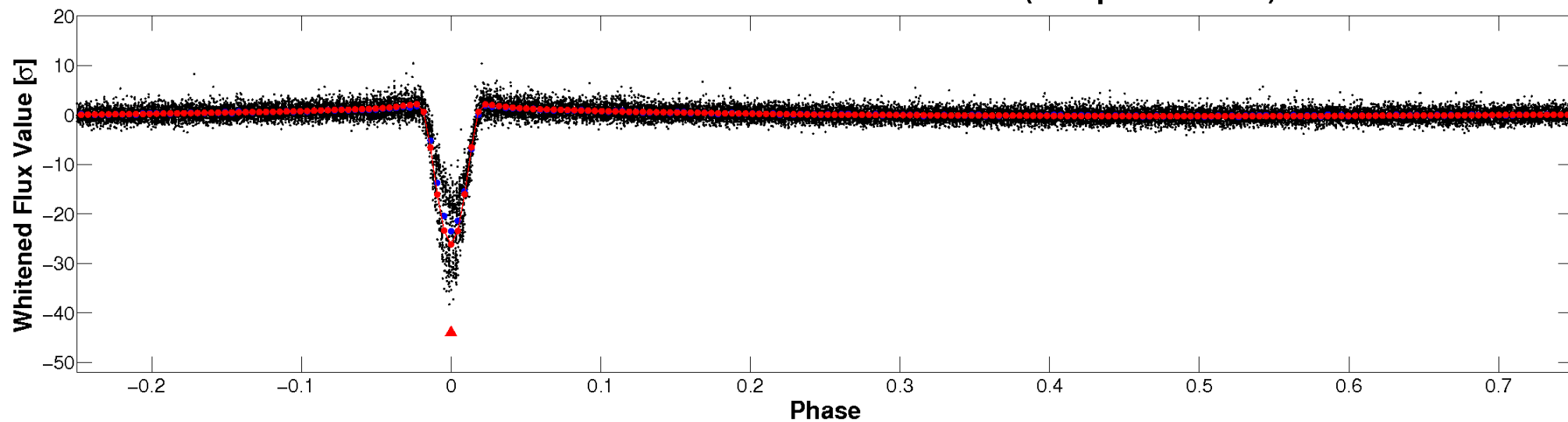


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

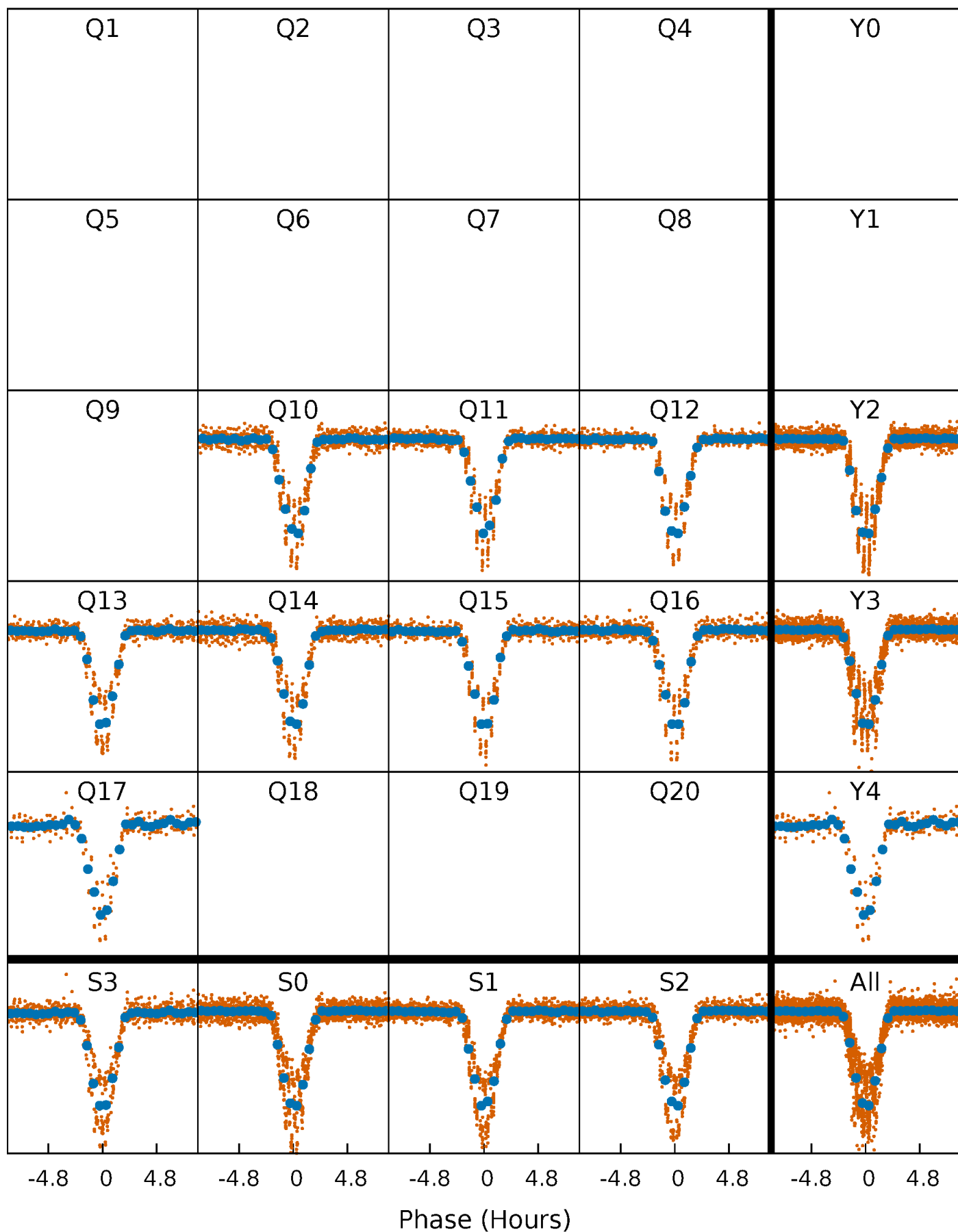


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



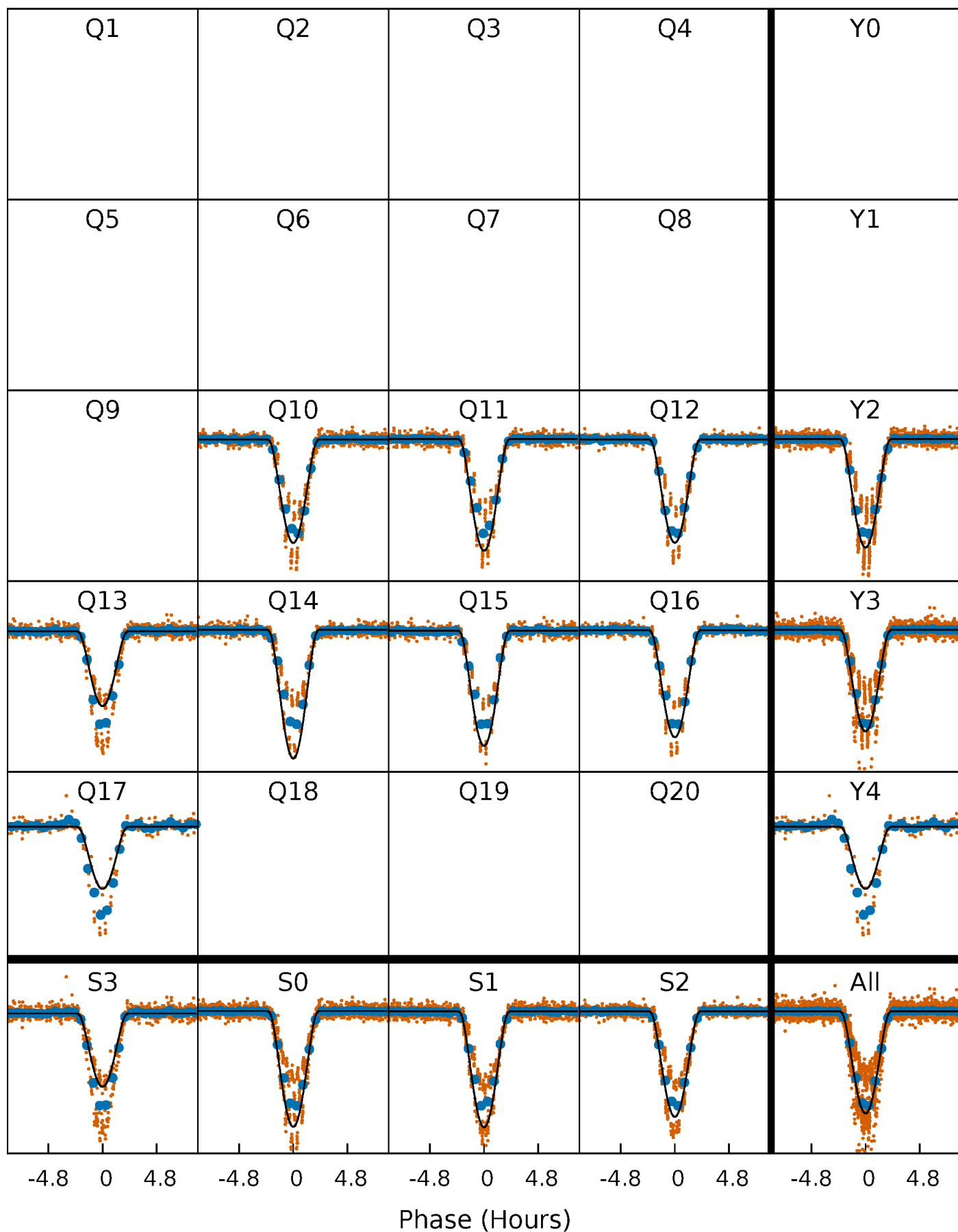
PDC Quarter-Phased Transit Curves

TCE 005652260-01 P= 4.464585 Days $T_0=132.306035$ (BKJD)



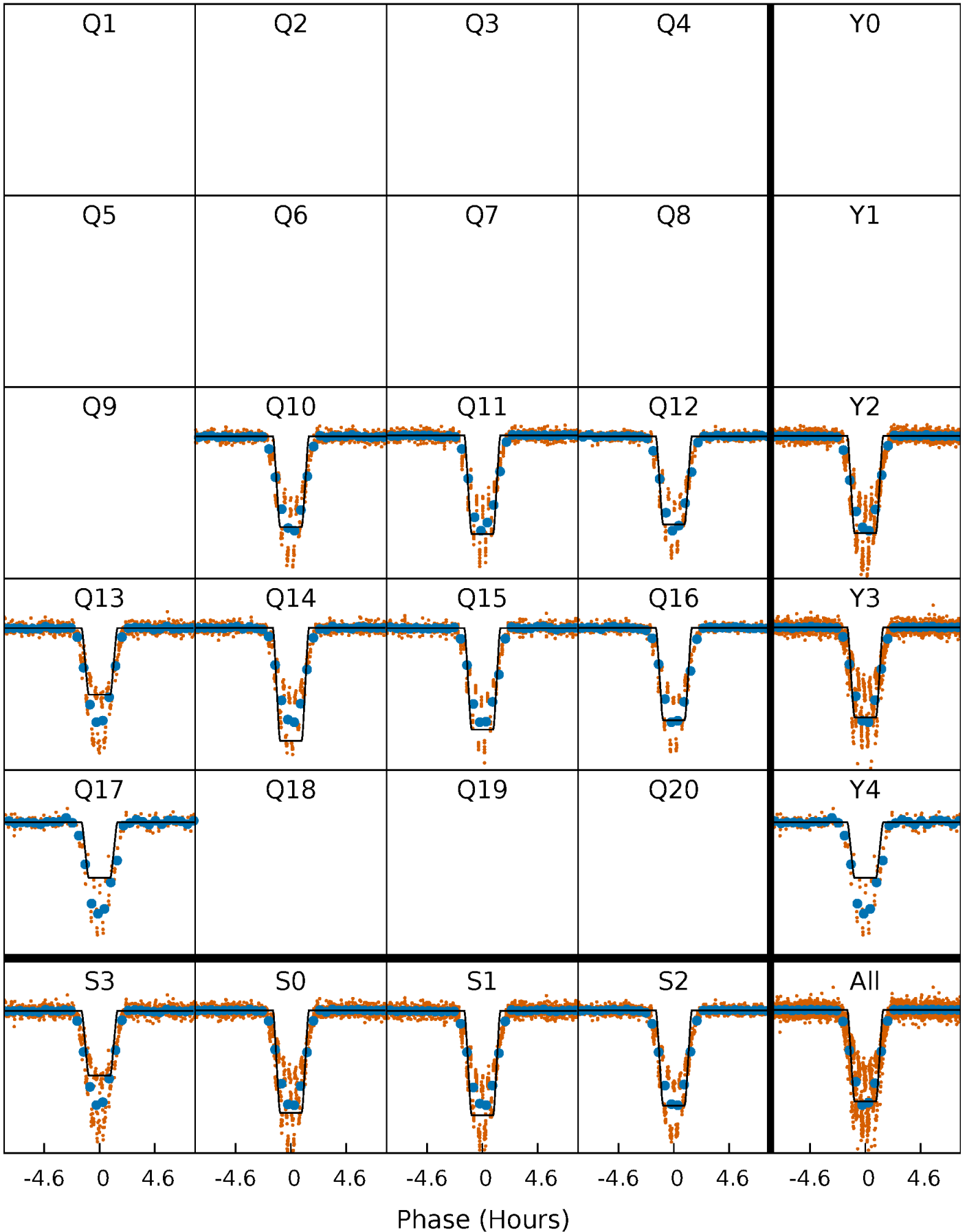
DV Quarter-Phased Transit Curves

TCE 005652260-01 P= 4.464585 Days $T_0=132.306035$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

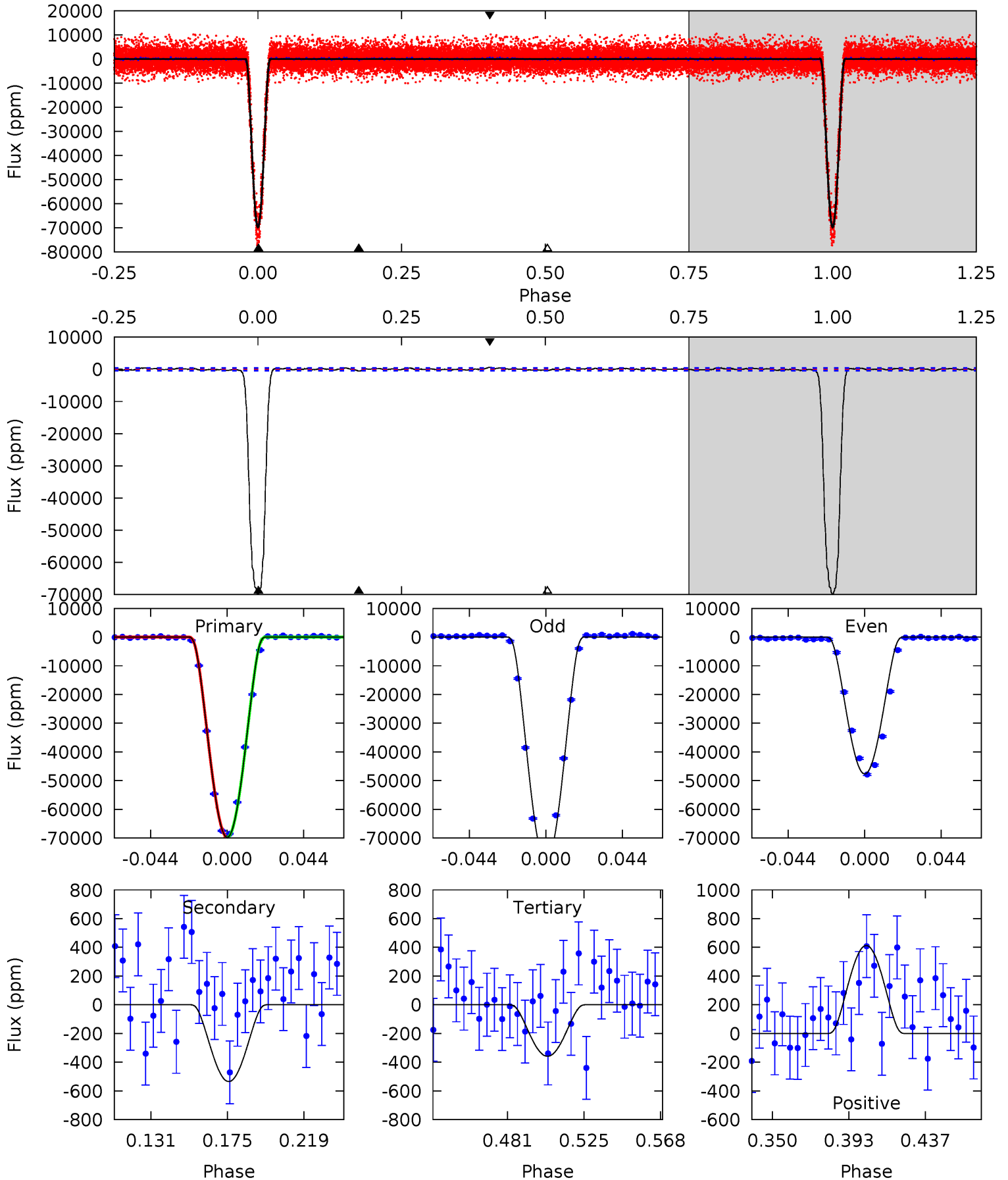
TCE 005652260-01 P= 4.464543 Days $T_0=132.318101$ (BKJD)



DV Model-Shift Uniqueness Test

005652260-01, P = 4.464585 Days, E = 132.306035 Days

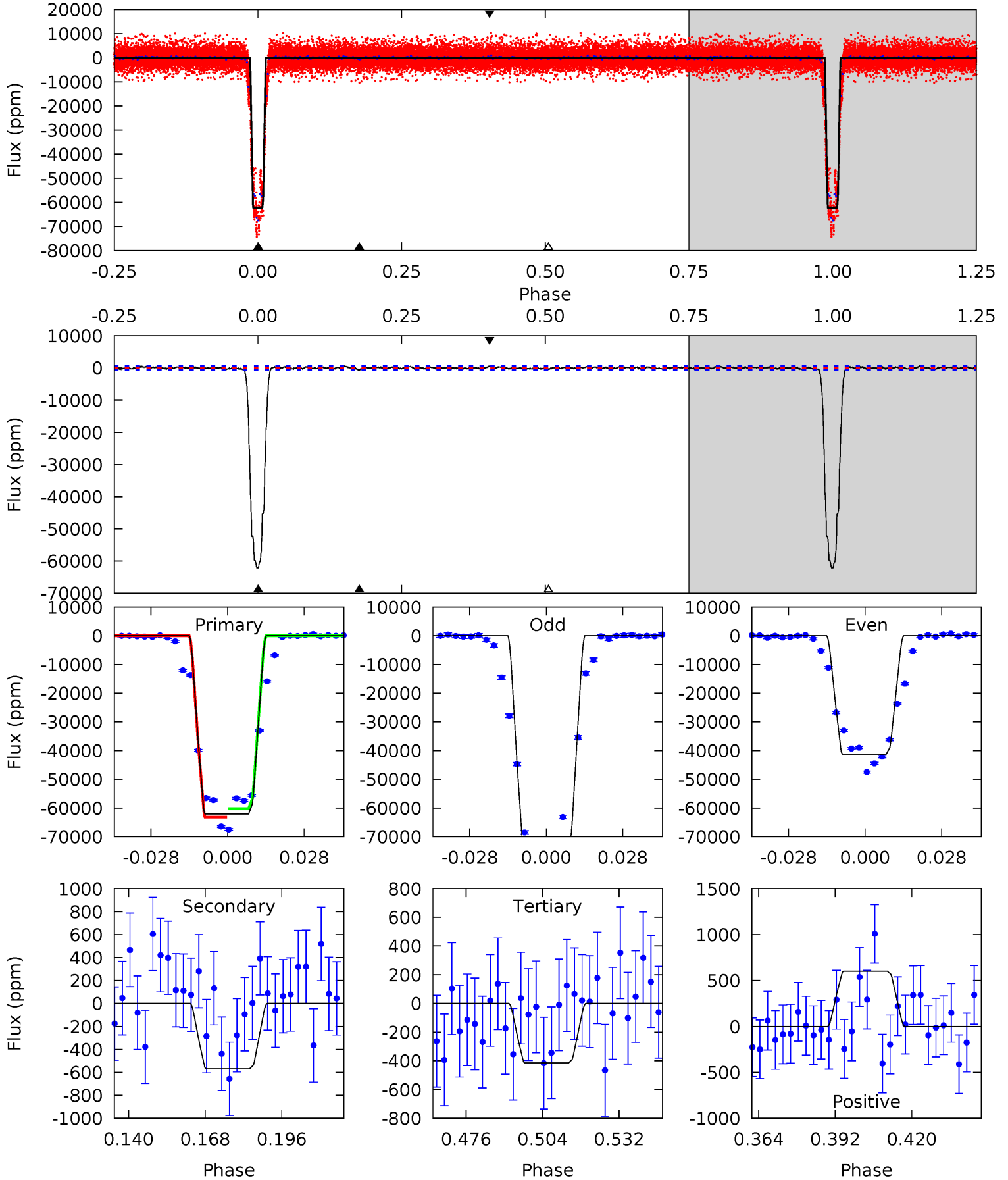
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
771.8	5.92	3.97	6.78	4.74	2.02	1.93	767.8	765.0	1.95	-0.86	197.3	1.00	0.01	0



Alt Model-Shift Uniqueness Test

005652260-01, P = 4.464543 Days, E = 132.318101 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
458.8	4.20	3.06	4.45	4.83	2.20	1.15	455.7	454.3	1.13	-0.25	153.5	0.99	0.01	0



Stellar Parameters For KIC 005652260

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5743^{+169}_{-186}	$4.553^{+0.035}_{-0.196}$	$-0.140^{+0.300}_{-0.300}$	$0.853^{+0.241}_{-0.080}$	$0.949^{+0.100}_{-0.111}$	$2.155^{+0.404}_{-1.076}$
	+3%/-3%	+1%/-4%	+214%/-214%	+28%/-9%	+11%/-12%	+19%/-50%
Source	KIC0	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 005652260-01 / KOI 3703.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-535 ± 90	$33.61^{+5.56}_{-4.78}$	1469^{+97}_{-62}	2228^{+129}_{-151}	$0.700^{+0.252}_{-0.208}$
Alt.	-568 ± 135	$24.64^{+4.94}_{-4.19}$	1469^{+107}_{-66}	2513^{+179}_{-176}	$1.368^{+0.757}_{-0.497}$

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 $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

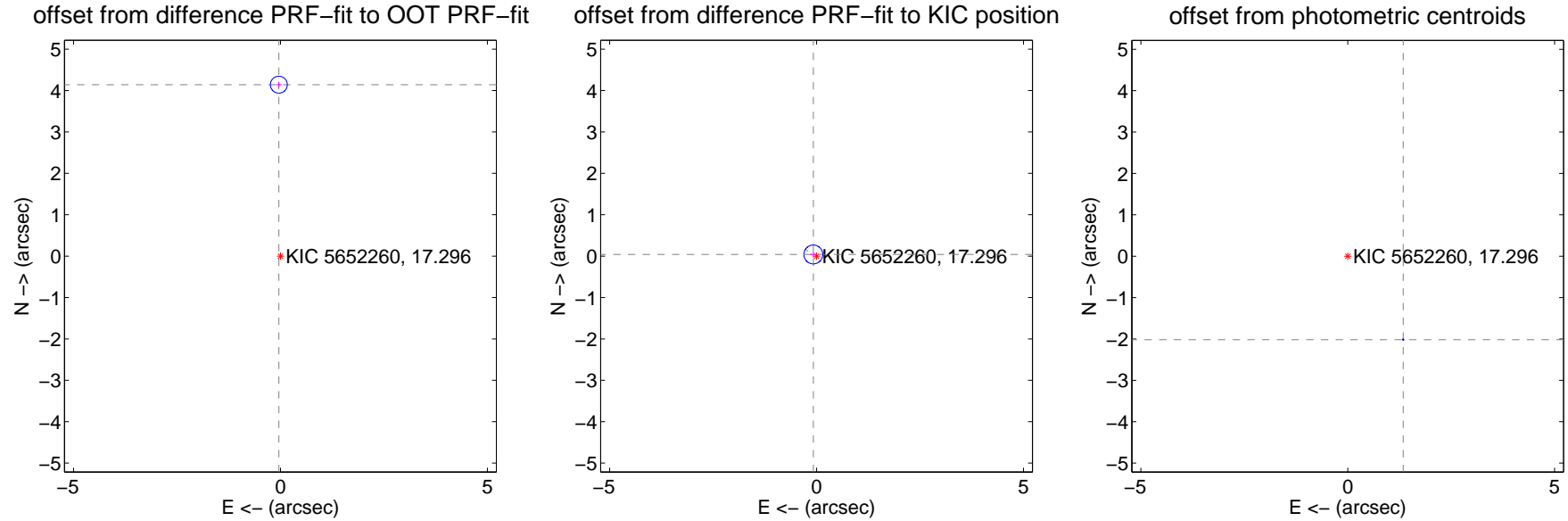
DV Centroid Data

Supplemental centroid analysis for 005652260-01. Kepler magnitude: 17.30. Transit SNR 347.63

There are 8 quarters with good PRF difference image offsets

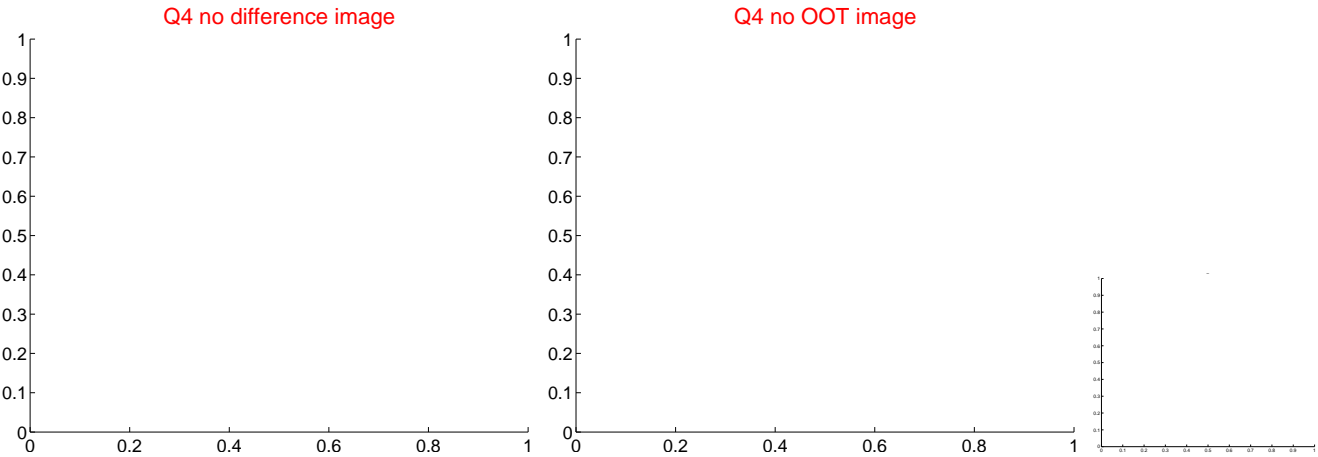
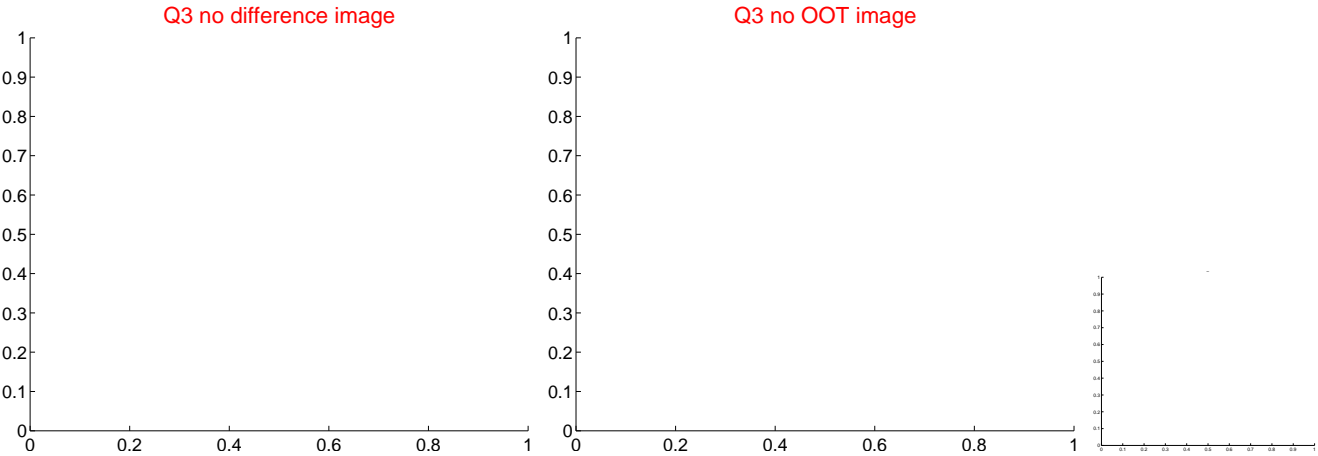
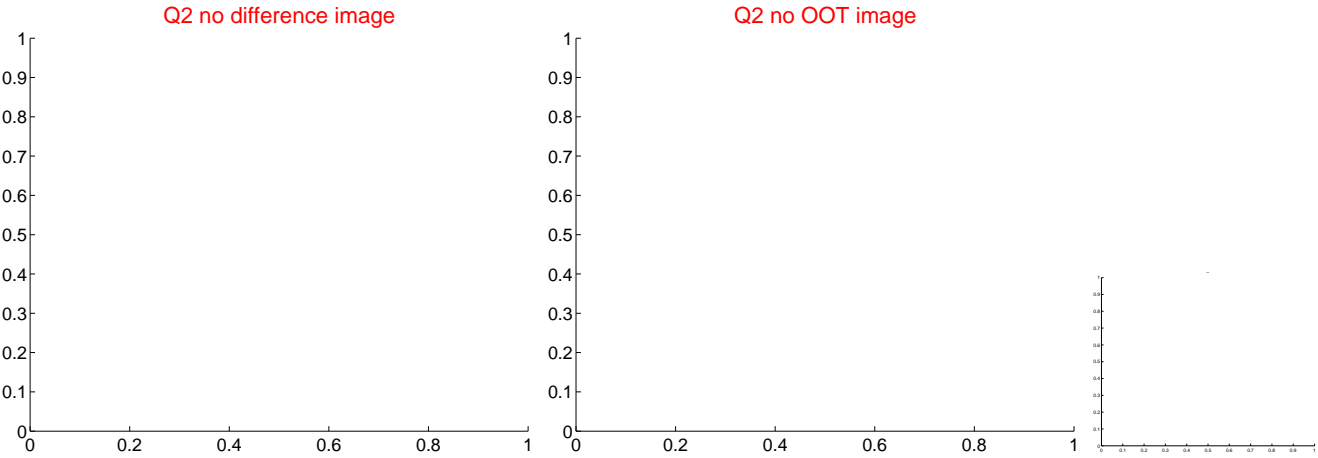
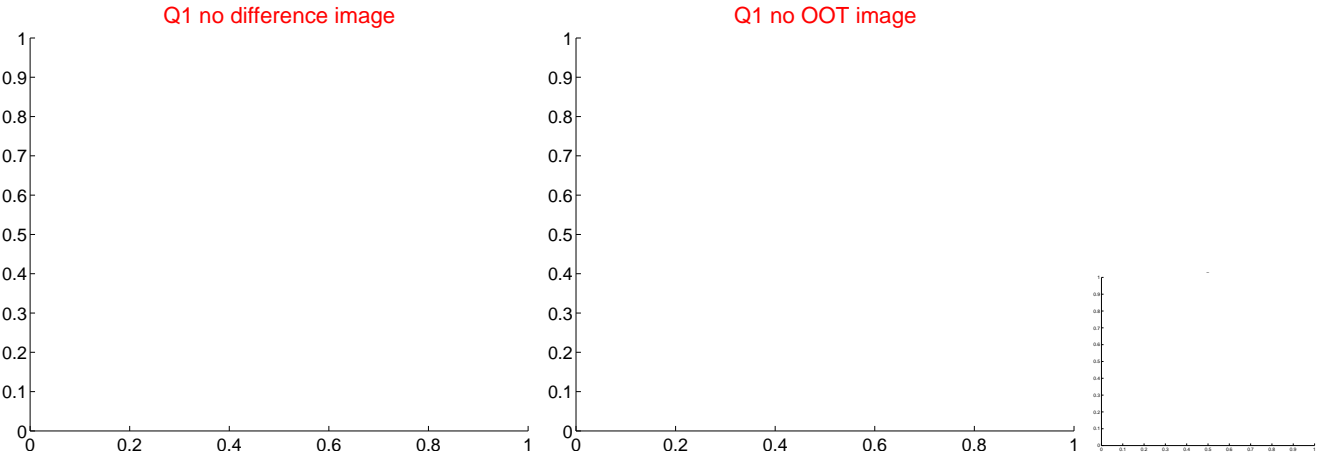
The OOT PRF centroid is offset from the target star catalog position by about 4.01 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.143 ± 0.068	60.78	0.039 ± 0.071	4.142 ± 0.068
PRF-fit source offset from KIC position	0.088 ± 0.076	1.16	0.079 ± 0.072	0.040 ± 0.078
photometric centroid source offset	2.42 ± 0.01	445.39	-1.34 ± 0.01	-2.02 ± 0.00

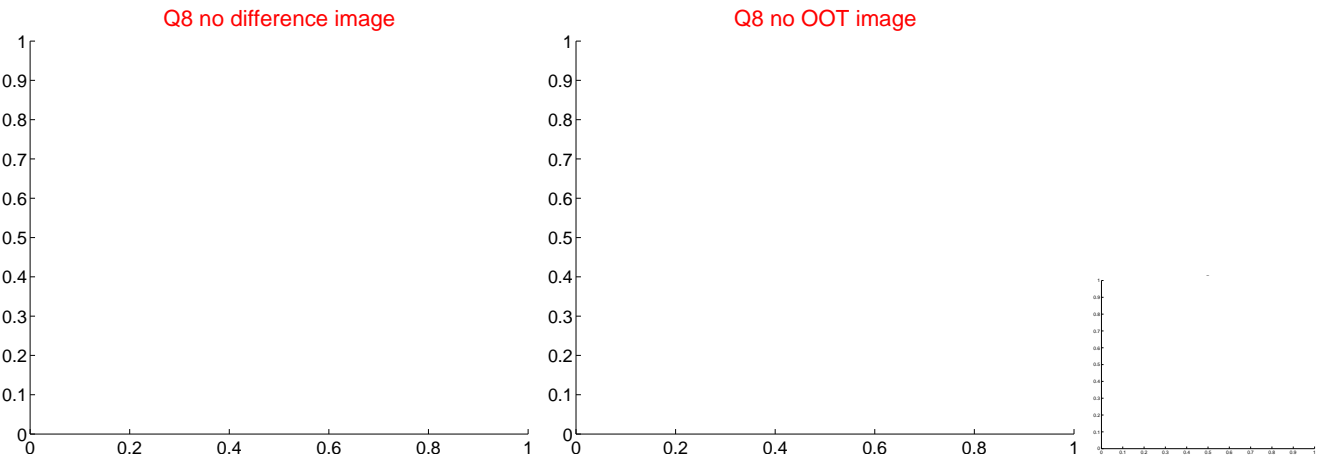


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

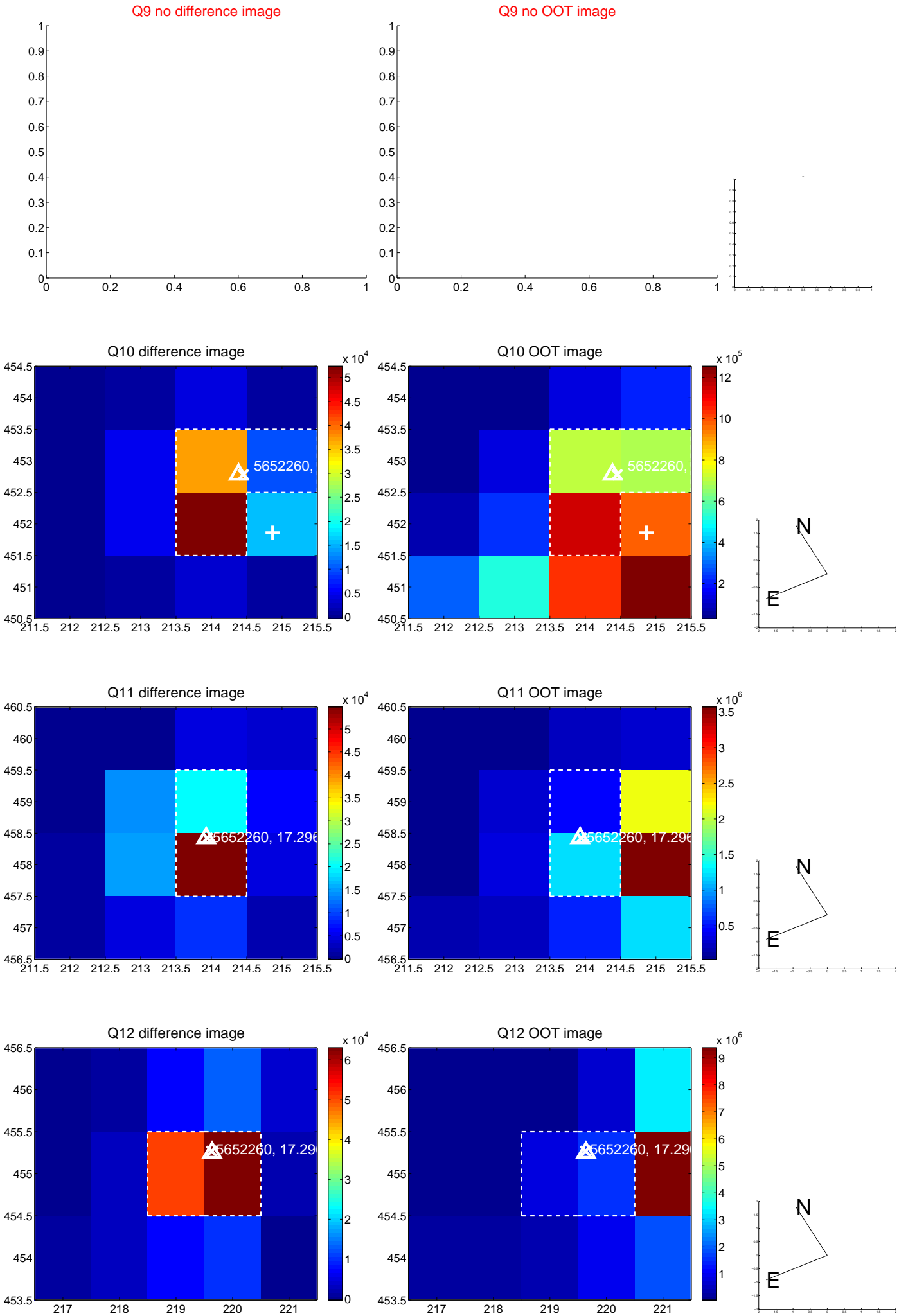
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



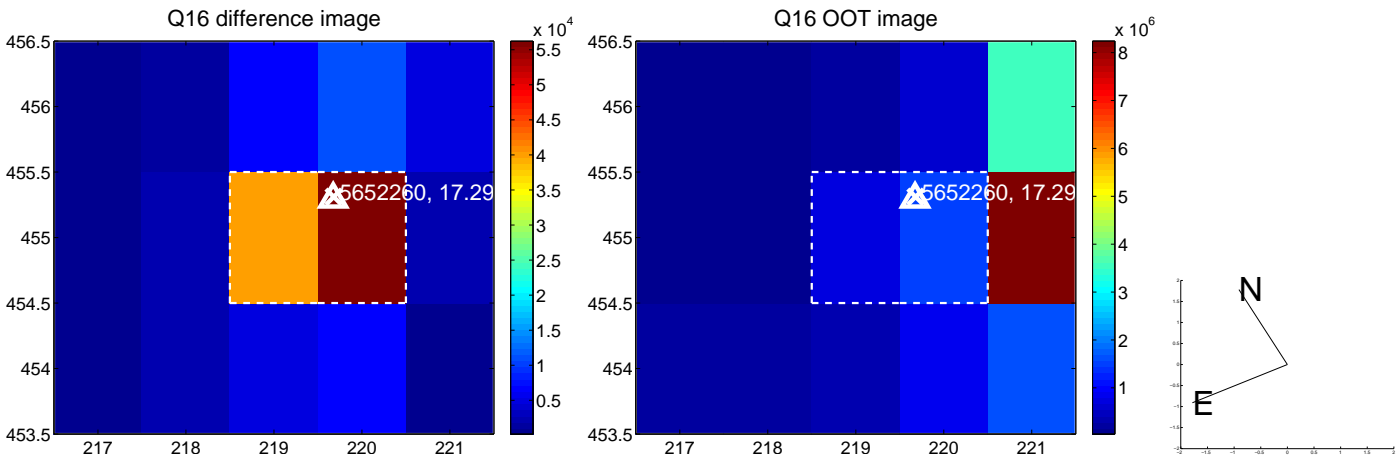
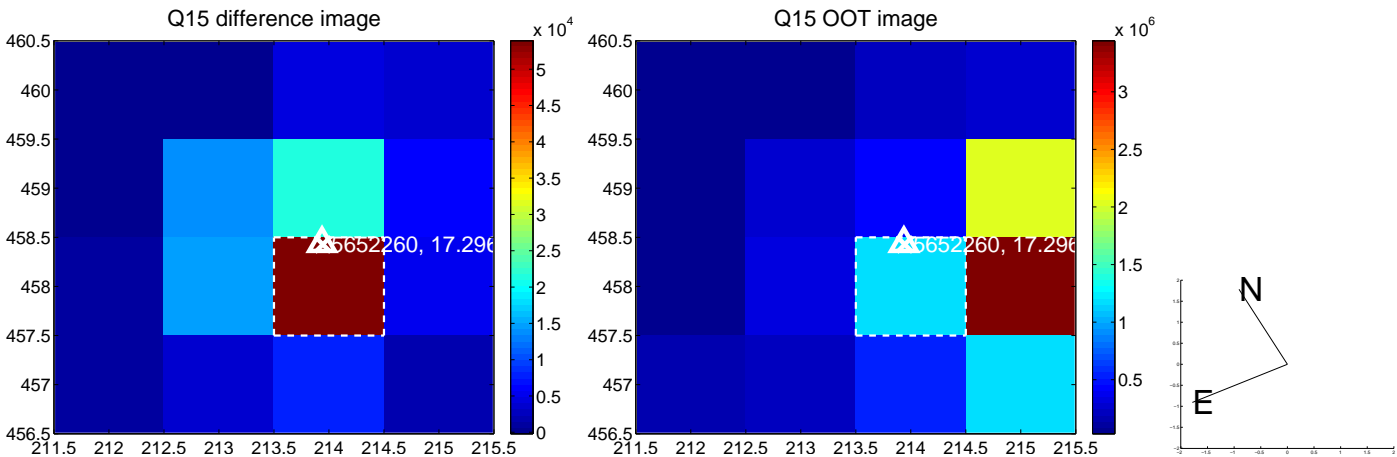
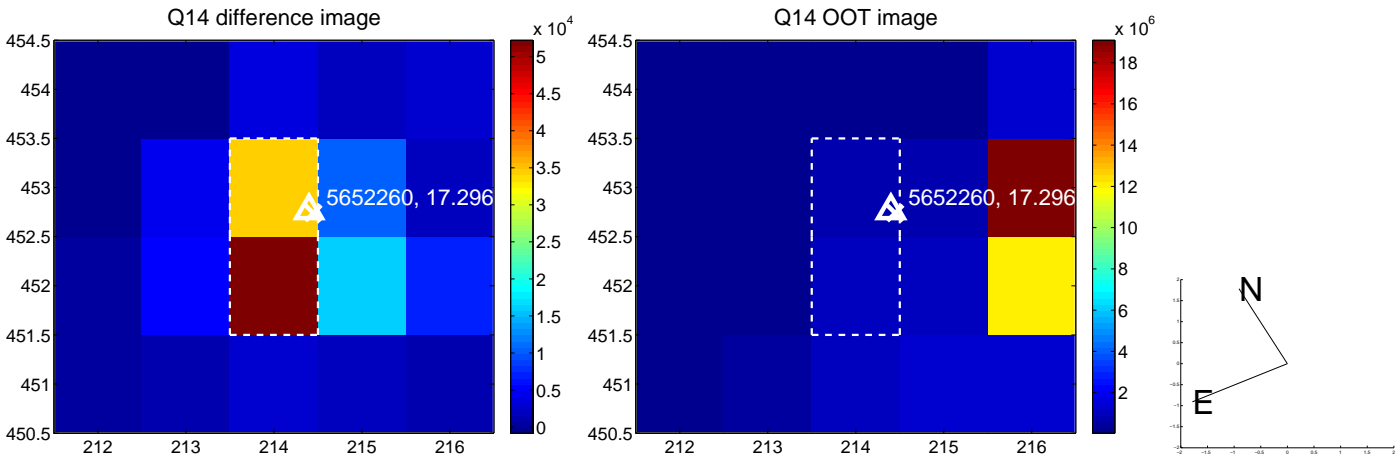
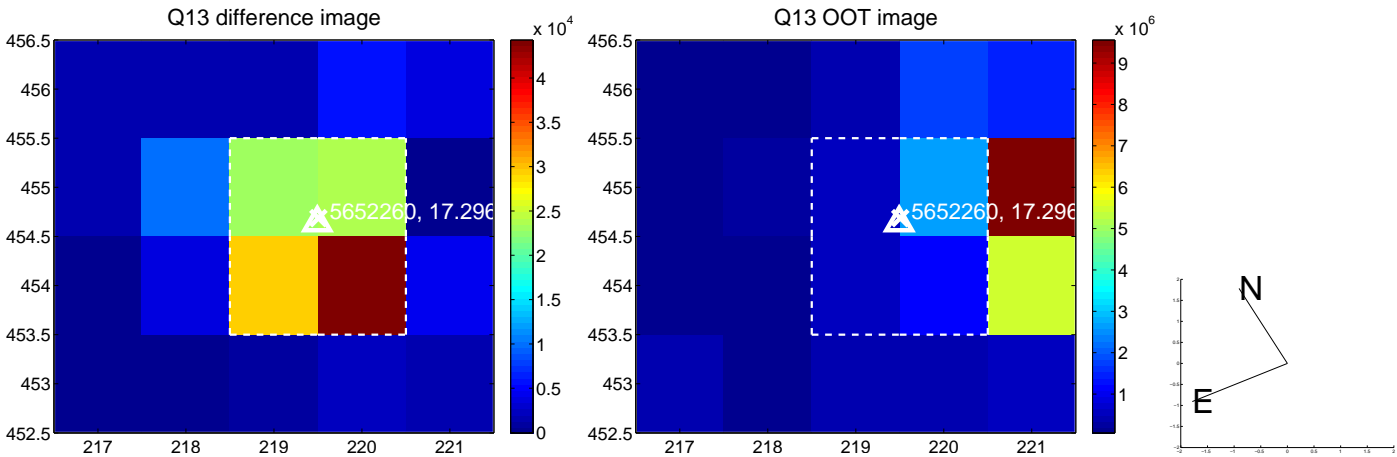
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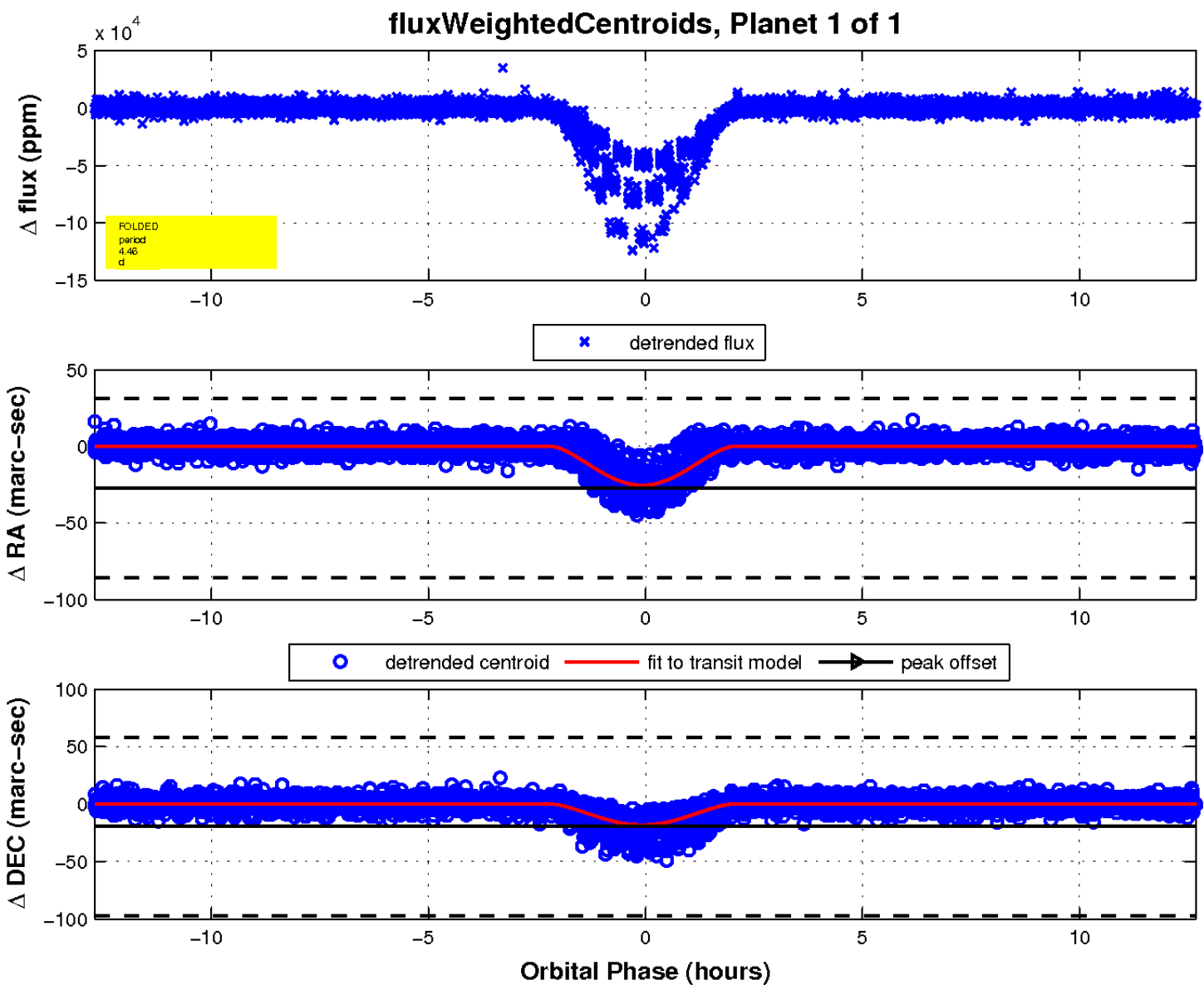
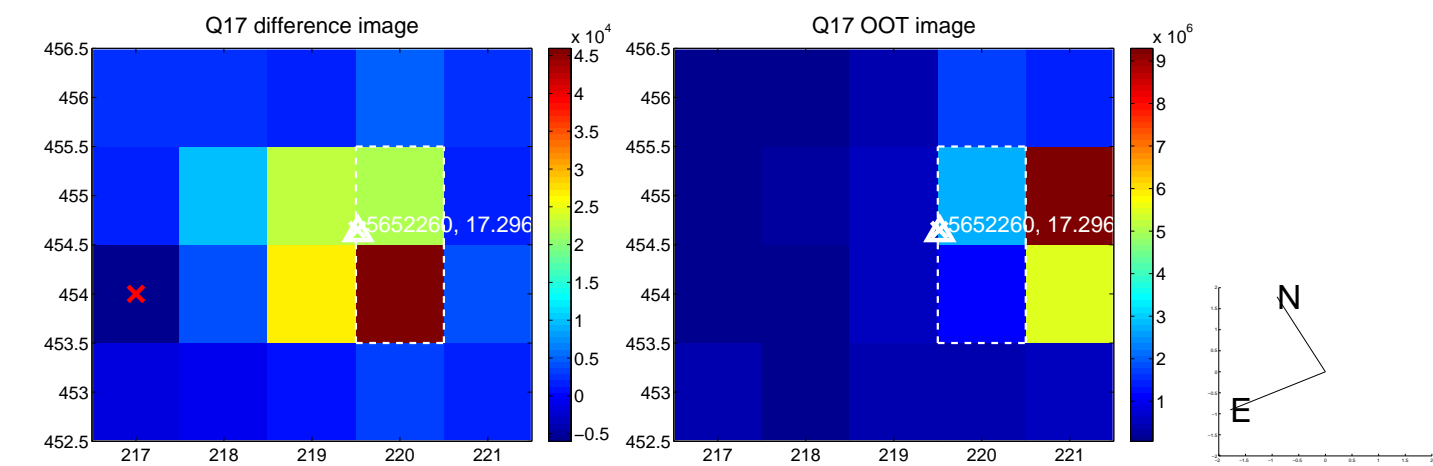
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UKIRT Image

Declination

